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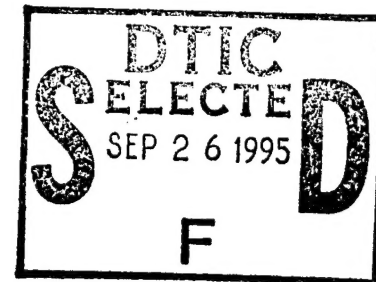
Construction Engineering
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Technical Review of the Economic Development Conveyance Application for Sacramento Army Depot Activity by the City of Sacramento, CA

Volume 1 — Executive Summary

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In 1993 President Clinton requested that Congress provide new authority to expedite the reuse of military bases adversely affected Base Realignment and Closure (BRAC) actions. The result was a new property transfer method, called an Economic Development Conveyance (EDC), which gives greater flexibility to the Department of Defense (DoD) and affected communities to negotiate a mutually beneficial property transfer.

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warehouse facilities on the depot. The U.S. Army Construction Engineering Research Laboratories (USACERL, Champaign, IL) was tasked by Headquarters, U.S. Army Corps of Engineers to (1) review the City's application for compliance with Department of Defense (DoD) rules implementing the Federal EDC policy, (2) analyze the findings, and (3) report to the sponsor. The review group recommended acceptance of the City's application contingent on specified clarifications.

Volume 1 of this report comprises an Executive Summary of the group's findings. Volume 2 comprises the EDC application package submitted to the Army by the City of Sacramento.

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Foreword

This study was conducted for the Base Realignment and Closure (BRAC) Office, Headquarters, U.S. Army Corps of Engineers (HQUSACE). The work was funded through the BRAC Officer in the Office of the Assistant Chief of Staff for Installation Management (ACSIM-DAIM-BO) under military interdepartmental purchase request 5DCERLB322, dated 11 January 1995. The technical monitor was Gary B. Paterson, CERE-C.

This project was managed through the Technical Assistance Center (TAC), U.S. Army Construction Engineering Research Laboratories (USACERL), and executed by personnel from TAC, the Infrastructure Laboratory (FL), and the Environmental Laboratory (EL). Gary W. Schanche is Chief, CECER-TA. William D. Goran is Chief, CECER-EL. Dr. Alan W. Moore is Acting Chief, CECER-FL. The Principal Investigators were as follows:

William V. Cork, CECER-TAP (EDC Project Coordinator, Economic Impact Analysis, Reuse and Military Disposal Plan Review, Other Federal Agency Interests and Concerns); Samuel L. Hunter, CECER-FMM (Need and Extent of Infrastructure Improvements, Layaway Cost Estimations); Dennis L. McConaha, CECER-CTC (Financial Feasibility Analysis, Industrial Market Analysis); Randolph D. Norris, CECER-ENL (Environmental Concerns); Gonzalo Perez, CECER-TAF (Economic Impact Analysis, Extent of Short-Term/Long-Term Job Creation, Extent of State and Local Investment); and Charles G. Schroeder, CECER-FFK (Real Estate Market Analysis). Gordon L. Cohen was a technical writer and managing technical editor.

Also acknowledged for their contributions are Bill E. Aley (CECER-ECE), Sandra K. Bantz (CECER-IMT), Laura S. Drasgow (CECER-TAP), Jeanne L. Jenkins (CECER-TA), James H. Johnson (CECER-FFR), Wayne J. Schmidt (CECER-FFK), Richard L. Schneider (CECER-ECE), Janet H. Spoonamore (Acting Chief, CECER-PP), Vicki L. Van Blaricum (CECER-FMC), Linda L. Wheatley (CECER-IMT), and Judy A. Zindars (CECER-TA). Considerable assistance with data acquisition was provided by Susan Krinks (CESPK-RE-MC) at Sacramento District, and Roger Staab (DoD BTFO-SADA), the DoD Base Transition Coordinator. This research was supported in part by an appointment to the Research Participation Program at USACERL by the Oak Ridge Institute for Science and Education through an interagency agreement between the U.S. Department of Energy and USACERL.

LTC David J. Rehbein is Commander and Acting Director, USACERL, and Dr. Michael J. O'Connor is Technical Director.

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Executive Summary

Background and Overall Recommendation

On 2 July 1993 President Clinton announced a major new policy to speed the economic recovery of communities adversely affected by military base closures or realignments. The President requested that Congress provide additional authority to expedite the reuse of closing military bases. Congress provided this new authority (commonly called the Pryor Amendment) and subsequent amendments as Title XXIX of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 1994. Collectively, these new rules are intended to facilitate the conveyance (transfer) of military real property from the Federal government to other government agencies (including state, regional, municipal) or the private-sector to the mutual benefit of all parties.

The Secretary of Defense issued an interim final rule for implementation of the property conveyance method published in the *Federal Register* (vol 59, no. 206, 26 October 1994, pp 53735-53741). This new property transfer method, called an Economic Development Conveyance (EDC), gives greater flexibility to the Department and affected communities to negotiate the terms and conditions of the conveyance if specified criteria are met.

On 4 August 1994 the City of Sacramento, CA, acting as the Local Redevelopment Authority (LRA), filed an initial EDC application with the U.S. Army Corps of Engineers Sacramento District for conveyance of the Sacramento Army Depot Activity (SADA). An amendment to the application filed on 10 November 1994 indicated that Packard Bell Electronics, Inc., intended to lease over 1 million square feet of warehouse facilities on the depot. Subsequently, the U.S. Army Construction Engineering Research Laboratories (USACERL, Champaign, IL) was tasked by Headquarters, U.S. Army Corps of Engineers (HQUSACE) to provide a technical evaluation of the entire Sacramento EDC application package for compliance with the Department of Defense (DoD) interim rule (59 FR 206, pp 53735-53741). USACERL drafted a proposal for fulfilling the tasking, and the proposal was accepted on 19 December 1994. This report, including the appendices, comprises USACERL's findings, conclusions, and recommendations.

USACERL's overall recommendation is that Sacramento's EDC application be accepted by the Army and DoD, subject to the clarifications and

additional information requested below under "Review of Application for Completeness" and "Conclusions and Recommendations."

Objective

The objective of this study was to provide a technical review of Sacramento's EDC application in terms of:

1. Validity of the information provided by the applicant
2. Completeness of the application according to the criteria and factors specified in 59 FR 206, pp 53738-53739, the DoD interim rule.

The report on the technical review was to specify any deficiencies found in the Sacramento application, and to note how to address those deficiencies.

Tasking and Approach

Technical review of Sacramento's EDC application was executed by a multidisciplinary work group formed and managed through the USACERL Technical Assistance Center (TAC). Most of the group's work, which included site visits for data collection and coordination, was accomplished between 19 December 1994 and 17 January 1995.

Validity of the information provided on the EDC was determined following a protocol specifically developed to evaluate the eligibility of the applicant in terms of criteria specified in the Pryor Amendment. Using data provided in the EDC application and supporting documents, as well as data gathered independently by team members, USACERL evaluated the application according to the criteria and factors specified in the DoD interim final rule (59 FR 206, pp 53738-53739):

1. Adverse economic impact of closure on the region and potential for economic recovery after an EDC
2. Extent of short- and long-term job generation
3. Consistency with the overall Redevelopment Plan (i.e., the City of Sacramento's Reuse Plan)
4. Financial feasibility of the development, including market analysis and need, and the extent of proposed infrastructure and other investments
5. Extent of state and local investment and risk incurred
6. Current local and regional real estate market conditions in the affected area

7. Incorporation of other Federal agency interests and concerns, and applicability of, and conflicts with, other Federal property disposal authorities
8. Relationship to the overall Military Department disposal plan for the installation
9. Economic benefit to the Federal Government, including protection and maintenance cost savings and anticipated consideration from the transfer.

Another criterion to be reviewed under the Pryor Amendment is the proposed EDC's compliance with applicable Federal, state, and local laws and regulations. While legal review falls beyond the scope of USACERL's tasking, the application was reviewed for consistency with required environmental impact documentation.

Legal review was beyond the scope of the tasking, but USACERL's environmental quality mission and expertise enabled the review group to add value to the technical review by assessing the EDC application for consistency with required environmental impact documentation.

After evaluating the validity of the information provided in the EDC application, USACERL determined whether the application was complete in terms of the seven criteria specified in 59 FR 206 (p 53738). These criteria are listed below under "Review of Application for Completeness."

Finally, the USACERL review group compiled its findings and recommendations into this report and a supporting briefing for the sponsor. The report is published in two volumes:

- Volume 1—Executive Summary. The group's findings are summarized in the body of the report, with the detailed findings by each Principal Investigator printed in Appendices A–J.
- Volume 2—Copy of the City of Sacramento's EDC Application. The first part of Volume 2 is Sacramento's initial conveyance application, the Reuse Plan dated 4 August 1994; the second part is Sacramento's revised EDC Application, dated 10 November 1994.

Discussion of Findings

Adverse Economic Impacts of Closure and Recovery Potential (Appendix A)

The USACERL-developed Economic Impact Forecast System (EIFS version 5.0), an economic modeling system, was used to address these issues. First, the economic impact of closing SADA was determined using the assumptions that there would be no reuse of the property and that all other external changes to the region's economic conditions would

remain constant. Second, using projected new-employment figures from the City's EDC application and supporting analysis of short and long-term job-creation potential (Appendix B), an EIFS model was constructed to forecast the potential economic recovery associated with a successful EDC.

Table 1 illustrates the net recovery for key variables as forecasted by EIFS.

Table 1. Projected Economic Recovery to the Sacramento Region After the EDC.

	Losses from Full Closure	(-)	Losses from Semi-Closure	(=)	Amount Recovered
Total Sales Volume	\$437,607,000		\$56,124,000		\$381,483,000
Total Employment	7,250 jobs		1,016 jobs		6,234 jobs
Total Income	\$172,383,000		\$24,221,000		\$148,162,000
Net Government \$\$\$	\$3,631,000		\$822,000		\$2,809,000

Table 1 illustrates an adverse impact under the Full Closure scenario. However, as Table 2 shows, an EIFS rational threshold value (RTV) analysis indicates that the adverse impact would not be statistically significant to the region.

Table 2. Summary of RTV Results for a Full Closure of Sacramento Army Depot.

	Max. Hist. Negative Deviation (RTV) %	% Change (EIFS)	Statistical Significance
Business Volume	-7.010	-1.540	none
Employment	-2.515	-1.005	none
Personal Income	-3.482	-0.624	none
Population	-1.601	-0.352	none

It must be noted that cumulative economic impacts created by the additive effect of other adverse employment actions in the region were not calculated because time and data constraints would not permit the use of more sophisticated assumptions or modeling techniques. It is possible that more detailed data and sophisticated techniques would show a statistically significant adverse impact from total closure. However, given the magnitude of the numbers presented in Table 1 it is reasonable to conclude that closure of SADA has lead to a substantial adverse economic impact on the region.

The potential for economic recovery shown in Table 1 is also substantial. While slightly inflated for reasons discussed in Appendix A, the numbers demonstrate the relative order of magnitude of a recovery based on the number and types of new jobs projected by Packard Bell.

It also should be noted that SADA is located in an industrial area of Sacramento that is currently experiencing 13.5 percent unemployment. The applicant intends to focus employment opportunities in this depressed area. If these efforts are successful, the economic benefit to the area immediately surrounding SADA will be significant.

Short- and Long-Term Job Creation (Appendix B)

Although the home personal computer market is changing rapidly and is highly volatile, Packard Bell's projection of employing 3,000 people at SADA in the short-run is sound and feasible. The number of persons currently working at Packard Bell in the Westlake Village, CA, area was estimated to be 2,526 as of November 1994 (Appendix B, Attachment B1). Of all these jobs, only 1,326 were full-time positions while the rest were open positions. The estimated annual payroll at that time was \$60 million. Assuming that the company holds its current market share (43 percent), and assuming a 21 percent market growth, Packard Bell will probably reach the estimated 3,000 jobs in 1995. The estimated annual payroll of Packard Bell under this scenario is \$72 million, which falls within the \$60 to \$80 million projected by the City of Sacramento in the EDC application.

The City of Sacramento estimates that the secondary economic impact of Packard Bell's activity at SADA will generate an additional 2,000 to 2,500 jobs, and \$40 to \$60 million in additional income. These estimates are in line with the projected impact using the USACERL-developed Economic Impact Forecasting System (EIFS). The EIFS model estimates a secondary effect of an additional 2,700 jobs and a secondary income effect of \$66 million. These differences between the City's estimate and USACERL's are negligible.

Although the estimated relocation of 1,200 to 1,300 permanent jobs from the Los Angeles area seems a little high, a lower estimate would not have a considerable net effect. Packard Bell currently employs about 1,326 people full time at Los Angeles, and to expect most of them to relocate seems unrealistic. Since these jobs are the high-paying positions, the new employees hired to fill the positions left open by the non-relocating employees will come from all over the country, including the Sacramento area. The impact on Sacramento's economy will be the same whether the new workers come from Los Angeles or from somewhere else.

The City estimates that between 750 and 1,250 of the jobs will be entry level jobs in permanent positions with benefits. Currently, 47 percent of Packard Bell workforce is in open positions. Assuming that Packard Bell keeps the same labor structure, over 1,400 will be open positions and about 1,600 will be full-time positions. Also, since some of the success of the company comes from low production costs, it is expected that entry-level jobs will be open positions with minimum benefits.

Finally, Sacramento estimates that Packard Bell will hire between 1,700 and 1,800 new permanent employees. This estimate seems too high. Since between 1,200 and 1,300 permanent jobs were relocating to Sacramento, this puts the number of new permanent employees to be hired at the most 400 (1,600 minus 1,200). In other words, it is estimated that the number of new permanent employees, in the short-run, will be around 400, not between 1,700 and 1,800. In the long run, however, Packard Bell could create between 1,700 and 1,800 new permanent jobs either by maintaining its present growth level or by changing its current labor structure.

Consistency With the Overall Redevelopment Plan (Appendix C)

The Reuse Plan for the Sacramento Army Depot is an exemplary plan incorporating a comprehensive set of planning issues. USACERL's independent analysis of the proposed conveyance indicates that the EDC application is consistent with the spirit and intent of the Reuse Plan. In addition, the proposed action is consistent with the Reuse Plan's marketing strategy and implementation plan, generally. However, the EDC application provides insufficient support for this finding. Appendix C provides suggested language that will enhance the applicant's position.

With respect to Packard Bell's specific use of the Depot, the applicant fails to address potential inconsistencies (if there are any) with the overall Reuse Plan and fails to point out implementation strategies that pertain to phasing, allowed/prohibited uses, height and area requirements, parking standards, landscaping, building orientation and design (for any new construction or building modifications), lighting, loading and service areas, and several other areas identified in the Reuse Plan. While these issues are predominantly city concerns after the property is conveyed, it may be important to know how persistent Federal government interests in the property will be affected if substantial variances are granted. These considerations also affect the cost of proposed infrastructure improvements (see Appendix D).

Market Analysis, Financial Feasibility, and Infrastructure Investment (Appendix D)

Market Analysis and Financial Feasibility. The Reuse Plan should have a significantly positive impact on the Sacramento real estate market and will provide momentum for the City's efforts to recruit other developments to the base, as well as the surrounding area. While a development of this magnitude could certainly establish its own market parameters, the rental rates resulting from the Packard Bell agreement fall within the range of market rates for the area. The development's market feasibility has been established in fact by the Industrial Development Lease Agreement between the City and Packard Bell.

Assuming an initial investment of \$5.0 million for the purchase of the Depot property and returns of about \$6.8 million (purchase option) and \$2.9 million (potential sales) on the investment in years 10 and 11, respectively, the resulting internal rate of return (IRR) to the City would be 6.76 percent. This rate would be considered extremely low if compared to private sector investment standards, especially given the level of risk associated with real estate development. The City, of course, will measure its overall return on investment by jobs created and retained and the economic impact to the community from Packard Bell's \$60–\$80 million payroll and location to the area. The City's investment strategy and objectives were found to be reasonable and financially feasible.

See "Local and Regional Real Estate Market Conditions" and "Economic Benefit to the Federal Government" below (and their supporting appendices, Appendix F and Appendix I, respectively) for more details and supporting information.

Infrastructure Improvements. The City estimates the total cost to improve the infrastructure at \$21 million. USACERL estimates the bare minimum cost to improve the infrastructure will be between \$17.2 and \$21.1 million. This shows that Sacramento's estimate is reasonable. However, The City did not elaborate on the extent of the infrastructure improvements that would be required for economic development. Also, the City did not explain how infrastructure improvement costs were estimated.

The worst-case scenario, as defined in Appendix D, would require much more effort. USACERL estimates that the worst case could range from \$49.1 million to \$59.1 million. It is unclear in the redevelopment plan how the City would pay for any infrastructure improvements that might greatly exceed its estimates.

Extent of State and Local Investment and Level of Risk (Appendix E)

The State of California's investment would arise from declaring SADA an enterprise zone—the state would forgo future tax revenues from that area. Assuming that the enterprise zone is able to employ 1,000 qualifying workers the first year and a 90 percent annual retention rate, the amount of tax incentives to Packard Bell during the first 12 years could amount to \$33.2 million (see Table E2 in Appendix E). For each dollar forfeited, however, there would be an associated cost avoidance for unemployment or training subsidies. Based on two Standard EIFS Model Forecasts (Attachment E1 in Appendix E), net government revenues from creating 3,000 jobs in the Sacramento region is estimated to be between \$1.3 million and \$1.6 million a year. These net revenues are for the state, the four surrounding counties, and the city of Sacramento. All things considered, the EDC's net tax revenue effect on the State of California would be negligible.

The State of California would risk nothing in forfeiting tax revenues within the enterprise zone since the tax is forfeited after the unemployment and training subsidies have been avoided.

As reported on the EDC application, the City of Sacramento must invest \$17 million in building renovations, \$9 million in moving expenses, and \$3.4 million in off-site improvements, for a total of \$29.4 million.

The worst-case scenario for the City would be if Packard Bell defaults on the loans at the end of the first year (see Appendix E). In this scenario, the city would keep the property with the improvements and the off-site mitigation, and would have to find another tenant to fill the vacancy created by the default of the tenant. The cost to the city then would be \$5.25 million a year for each year the property is vacant (comprising lost rent, which equals the service on the tenant's debt). If the city took 2 years to find a tenant (which is equivalent to a 20 percent vacancy rate during a 10-year window), the loss would be \$10.5 million. However, there is no way to predict with certainty how long it would take the city to lease that amount of space.

Local and Regional Real Estate Market Conditions (Appendix F)

Residential Market Summary. Since January 1991, there has been an unseasonal, declining trend in the median price and a seasonal, declining trend in the total listing inventory for single-family detached homes resold in Sacramento County. It is unclear what degree of decline in Sacramento's residential real estate market over the last four years can be attributed to Department of Defense (DoD) base closures of SADA and Mather Air Force Base (AFB) versus the general economic decline experienced throughout the state. SADA employed approximately 3,540 civilians while Mather AFB employed roughly 1,800 civilians and 4,500 military personnel. It is reasonable to conclude that a 13.5 percent unemployment rate in South Sacramento, in part, reflects an adverse impact from these base closures. The economic development conveyance of SADA to the City of Sacramento will enable the city to lease much of the site to Packard Bell Electronics. Compared to the projected earnings of Packard Bell Electronics employees, former SADA military and civilian employees reportedly earned higher average annual wages of \$27,500 and \$29,000 respectively, and the vast majority of these employees did not live in the immediate vicinity of SADA. The main residential neighborhood near SADA is located west of Power Inn Road. The values of homes in this area are generally well below the median value of homes in Sacramento county. Since Packard Bell Electronics has targeted people from nearby neighborhoods for entry level positions, and since it appears that nearby neighborhoods have a number of likely candidates for such positions, residential real estate market activity in the immediate vicinity of SADA probably will increase. It also appears that residential real estate improvements would result from a successful EDC of SADA.

Industrial Market Summary. The Reuse Plan for Sacramento Army Depot presents a detailed industrial market analysis, citing many relevant market statistics supported by quantitative data. A technical review of this analysis revealed no discrepancies while much of the data presented was confirmed. The most recent industrial real estate market data for the Sacramento region was obtained from CB Commercial, Inc.'s 1994 third quarter reports. According to this source, Sacramento's Power Inn Industrial Area, the area SADA is within, is a highly competitive market, having the second largest number of industrial buildings (628) and total net rentable space (18,783,242 square feet). The Power Inn Area has the most vacant rentable industrial space (2,257,964 square feet) with the second largest vacancy percentage (12.0 percent). With a large

amount of modern industrial space available for lease at competitive prices and due to the many constraints on commercial reuse of the SADA facilities (including inadequate clear heights in the warehouse, inadequate truck maneuvering space between the warehouses, plumbing and electrical code inadequacies and noncompliance with requirements of the Americans with Disabilities Act), it appears that conveyance of SADA to the City of Sacramento for primary reuse by Packard Bell Electronics is more desirable than the risk alternative presented in the City of Sacramento's Reuse Plan. In the Reuse Plan, the City anticipated leasing approximately 115,000 square feet of space per year over 30 years in the absence of a single, large tenant.

Other Federal Agency Interests and Concerns (Appendix G)

The three questions, addressed in more detail in Appendix G, are summarized below. (The questions are printed in italics; USACERL's findings follow.)

1. *Does the application incorporate other Federal agency interests and concerns?* This review determined that the application adequately addressed Federal agency interests in its discussion of the Military Enclave.
2. *Do other Federal property disposal authorities (and, therefore, conveyance requests for these properties via those authorities) apply to the property in question?* Foodlink and California State University-Sacramento, the two organizations that received SADA conveyances under other authorities, are covered in the application. However, the City's role in the disposition of other McKinney Act and public benefit conveyance interests mentioned in related City documents may not be sufficient. The City of Sacramento's cover letter for the 10 November 1994 EDC application mentions that the LRA's request that the Army deny all public benefit conveyance requests is no longer an issue. The letter states that four public agencies have formally rescinded their requests and one other modified its request for a building compatible with the plan. Whether the City's disposition of these interests is sufficient should be determined by the Army's legal reviewers.
3. *Do other Federal property disposal authorities (and any related conveyance requests) conflict with the interest expressed in the EDC application?* Due to time constraints, USACERL did not conduct an exhaustive review of applications or offers made within the entire range of surplus property transfer methods available. A summary list of potential interests mentioned in several City documents is the only contribution that can be made at this point (see Appendix G). It is recommended that a thorough legal review of the handling of these applications be conducted to protect the Government from any potential protest.

The fact that the City of Sacramento has such an interest—a single buyer for the parcel—is very unusual. It is recognized that the law governing EDCs is not intended to supplant other Federal property disposal authorities, and an EDC cannot be used if the intended land use can be accomplished through another authority unless unusual circumstances are presented which demonstrate that the needed economic development and job generation cannot occur under the other allowable federal transfer authorities. It can reasonably be argued that this atypical offer by the LRA (and Packard Bell) constitutes exactly the type of "unusual circumstance" that warrants

consideration under NDAA 94, Title XXIX, Section 2903. However, the application seems to be incomplete because it fails to address in detail some of these issues, as well as a justification for not using a negotiated or public sale method of transfer in Section 4 of the 10 November 1994 application.

Relationship to Overall Military Department Disposal Plan (Appendix H)

The EDC application is consistent with the Army's Disposal Plan for the Sacramento Army Depot. The proposed use by Packard Bell Electronics is consistent with the Plan's definition of highest and best use; the EDC application considers several public benefit and McKinney Act conveyances mentioned in the Army Disposal Plan. Also, this arrangement would facilitate rapid transfer of the property—a specific goal of the Disposal Plan.

It should be noted, however, that the Army's Disposal Plan anticipates that over 230 acres of the Depot will be occupied by Public Benefit or McKinney Act interests. If the EDC is approved, the amount of land available to such interests would drop to approximately 107 acres. This divergence from the initial plan does not make the EDC application inconsistent with the Disposal Plan *per se*, because a single tenant as large as Packard Bell was virtually unforeseeable. However, if there is persistent interest in SADA by parties requesting a transfer via another property conveyance method, this may be a problem. (See Appendix G for details.)

Economic Benefit to the Federal Government (Appendix I)

The Army could expect \$6.7 million (future value) in year 10 from the proposed second trust deed agreement with the City. This amount is contingent on acceptance or negotiation by the Army. This figure is developed and documented in Appendix D as part of the financial feasibility analysis (see Table D1 and supporting text).

The Federal government will realize the most economic benefit through avoidance of property protection and maintenance costs. The worst-case scenario is that the government could not convey the property, and would have to maintain it over an extended time. This scenario would cost the government \$1.5 million a year because a commercial activities maintenance contract for that amount is currently in place. Without that contract it would still cost the government \$300,000 a year to maintain the depot according to Army practice at prescribed layaway levels. Again, the economic benefit of the EDC for the Federal Government would be the avoidance of spending these amounts for property maintenance and protection.

Environmental Considerations (Appendix J)

Determining the application's compliance with applicable Federal, state, and local environmental laws and regulations was beyond the scope of USACERL's tasking. However, USACERL did review the application for consistency with the required environmental documentation filed for the Reuse Plan.

The National Environmental Policy Act (NEPA) documentation required for the Reuse Plan was completed and made available in October 1994. The Sacramento Army Depot Disposal and Reuse Environmental Impact Statement (EIS, October 1994) has been approved by Lewis D. Walker, Deputy Assistant Secretary of the Army (Environment, Safety, Occupational Health). The Record of Decision is being prepared.

USACERL's environmental review acknowledges the issues raised by the disposal and reuse of the Sacramento Army Depot, as well as their resolution. The use intended in the EDC application most closely resembles the preferred alternative identified in the Disposal and Reuse EIS. The EIS notes potential significant adverse impacts to traffic and wildlife that would result from the implementation of the preferred alternative. However, these impacts can be reduced to insignificant levels through mitigations proposed in the documentation. The mitigations would be carried out by the new owners of the site.

Review of Application for Completeness

This section summarizes the group's review of Sacramento's EDC application as required by the Interim Final Rule Amendment (32 CFR Parts 90 and 91, p53738; FR vol 59, no. 206, 26 October 1994). The content requirements are listed below in *italics*, followed by USACERL's response.

1. *Copy of the adopted Redevelopment Plan.* A copy of the plan is included.
2. *Project narrative, including:*
 - a. *General description of the property requested.* A sufficient description is provided.
 - b. *Description of intended uses.* No information on specific uses by Packard Bell is included.
 - c. *Description of the economic impact of closure on the local communities.* The application should reference the city's Reuse Plan, which includes this information.
 - d. *Description of the financial condition of the community....* The 13.5 percent unemployment rate for Power Inn area is cited, but the application does not adequately convey unemployment figures for the entire region. To include this information, the application should reference the reuse plan. The application needs to support its claim that the buildings are totally obsolete. Residential market conditions are not considered in the application.
 - e. *Statement of how the EDC is consistent with the overall Redevelopment Plan.* The EDC application is consistent in many respects with the Reuse (Redevelopment) Plan. However, there are many inconsistencies or omissions in the application that must be addressed. See Appendix C for specifics.
3. *Description of how the EDC will contribute to short- and long-term job creation and economic redevelopment... including projected number and type of new jobs....* The application should provide evidence that Packard Bell will hire the number of employees projected. Also,

information should be provided about types of jobs and salary ranges to be provided; this information would facilitate a better economic impact analysis.

4. *Business and development plan for the EDC parcel, including:*
 - a. *Development plan timetable, phasing plan, and cash flow analysis.* The application does not make clear the connection between the Reuse Plan and the Packard Bell agreement. Plans for the rest of the developable land at SADA are not addressed. The applicant should describe how the figure of \$2.9 million in year 11 was calculated.
 - b. *Market and financial feasibility analysis....* The cost estimates in the application must be supported.
 - c. *Cost estimate or justification for infrastructure and other investments needed for development of the EDC parcel.* The application does not include cost estimates for railroad facilities, bike paths, landscaping, and other improvements that would make the development compliant with the Reuse Plan. The application also needs to support the stated caretaker costs for installation layaway (see TN 420-10-08 for additional guidance).
 - d. *Local investment and proposed financing strategies for the development.* There appears to be a computational error on Page 9 of the application; an incidental cost of \$200,000 mentioned on page 7 appears to have been overlooked. Also, it is not clear how the economic feasibility of the plan would be affected if common area maintenance (CAM) and infrastructure renewal costs cannot be collected from the current SADA occupants (i.e., Foodlink and California State University–Sacramento), to whom property has already been transferred through other conveyance mechanisms.
5. *Statement describing why other authorities—such as negotiated sale and public benefit transfers... —cannot be used to accomplish the economic development and job creation goals.* The application does not provide enough information for a proper evaluation of this criterion (see Appendix G). Furthermore, the application is inconsistent with the Reuse Plan where the Plan argues that negotiated sale could be used to transfer the property. Also, the first sentence on page 7 of the application is inconsistent with the Reuse Plan statement on page 10-6 that “...it is anticipated that [a homeless provider] will not participate in a fair-share allocation of the site development cost...”
6. *If a transfer is requested for less than the estimated fair market value... then a statement should be provided justifying a discount.* No such statement is provided; the application must be corrected to justify this EDC request if the Military Department appraisals are substantially higher than the City estimates.
7. *Statement of the LRA’s legal authority to acquire and dispose of the property.* The City includes a letter demonstrating its authority. The validity of the LRA’s statement should be subject to Army legal review.

Conclusions and Recommendations

USACERL's overall recommendation is that the Sacramento's EDC application be accepted if the concerns addressed in this technical review are satisfactorily resolved.

In general, the placement of a company like Packard Bell at SADA is a unique opportunity to facilitate substantial economic recovery in the immediate area and in the region. Packard Bell will create new jobs in the short term and the probability of long-term success is high, but it would be helpful from an analytical point of view to know the types of jobs being created and their related salaries.

The proposed reuse seems to be consistent with the City of Sacramento's Reuse Plan and the Army's Disposal Plan, although better documentation of these facts should be included in the application. From what this review group knows about the proposed financing strategy, the transaction seems to be a "win-win-win" situation that satisfies the needs of all parties and motivates the prospective tenant to persist over the long term. While the Army real estate appraisals and projected infrastructure cost estimates have not been completed, USACERL independent analysis of the market conditions and infrastructure improvement costs indicates that the City of Sacramento's analysis and findings seem to be defensible.

Failure of the City to adequately address in their application other Federal, state and local interests in the SADA property poses a concern. Additionally, USACERL strongly recommends that any negotiation related to the ultimate conveyance of this property include discussions related to environmental considerations—particularly mitigation of potential impacts on traffic and endangered species. The Army also should be aware of measures necessary to accomplish Superfund compliance.

Answers to the questions raised in the "Review of the Application for Completeness" will move the Army closer to closure on this issue.

Appendix A: Adverse Economic Impact of Closure on the Region and Potential for Economic Recovery After the EDC

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Background

The loss of jobs and absence of external funds to purchase local goods and services to support an active Sacramento Army Depot has had an adverse economic impact on the City of Sacramento and the surrounding region. Home to the state capital and regionally co-located with other military facilities, the Sacramento area is dependent on government and military employment to support its economy. What appears to be in question here is the extent of these impacts and whether the proposed EDC request will facilitate a recovery of those lost jobs and revenues. This document will examine these questions.

Approach

First, a determination was made of the extent of economic impact to the region pursuant to the closure of the Depot assuming that there will be no reuse of the property and holding all other external changes to the economic conditions in the region constant. Next, using projected employment figures articulated in the EDC application and supported by USACERL analysis of short- and long-term job creation data a model of the potential economic recovery associated with the success of the EDC was forecasted. To accomplish these objectives, the Economic Impact Forecast System (EIFS version 5.0) was used. EIFS was designed to address the regional economic impact of military actions. It has evolved over the years as a result of efforts by USACERL researchers and consultants, in cooperation with a number of research efforts undertaken by other agencies and major projects in DoD. Such Projects included the MX missile deployment and, more

recently, the Intermediate Nuclear Forces (INF) Treaty and Base Realignment and Closure (BRAC).¹ EIFS is required by the Department of the Army for use in the socioeconomic impact analysis related to National Environmental Policy Act (NEPA) and was used extensively to document projected economic impacts associated with reuse scenarios for the closure of the Sacramento Army Depot².

Extent of Economic Impact to the Region Pursuant to the Closure of the Depot

Three basic steps are necessary to generate a Standard EIFS Forecast:

1. Define the region of influence. In this case, the Final Environmental Impact Statement related to the disposal of the Depot identified the region of influence by the following counties: El Dorado, Placer, Sacramento, and Yolo³. We do not dispute this determination.
2. Generate the following assumptions:

Deflators: (EIFS default deflators were used for a base year = 1987)
 (price deflator for baseline year (ex b.v.)): 100.00
 (price deflator for output (ex b.v.)): 126.30
 (price deflator for baseline year (BV)): 100.00
 (price deflator for output (BV)): 115.70

Change in expenditures for local services and supplies: (-) \$80,273,146
 (price deflator): 115.70

The change in expenditures for local services and supplies was calculated by computing an estimated level of income expended in the community for each of the affected employees and summing these numbers. In this case:

Civilian Employment (CE) = (-)3186
 Average Civilian Income (ACI) = \$29,000
 Retained percentage (leakage) (CL) = 79.9%

Civilian Expenditures for local services and supplies = CE * ACI * CL=
 (-) \$73,822,806

we then add Military Expenditures to the Civilian Expenditures (derived using a similar method)

Military Employment (ME) = (-)354
 Average Military Income (AMI) = \$25,700

¹ EIFS 5.0, *Economic Impact Forecast System User's Reference Manual* (USACERL Technical Report TA-94/03, July 1994).

² *Sacramento Army Depot Disposal and Reuse Final EIS* (Appendix D, October 1994).

³ *Sacramento Army Depot Disposal and Reuse Final EIS* (Appendix D, October 1994).

Retained percentage (leakage) (ML) = 70.9%

Military Expenditures for local services and supplies = ME * AMI * ML =
(-) \$6,450,340

Change in civilian employment: -3186.00

The 1990 base value for civilian employment as cited in the Sacramento Army Depot Disposal and Reuse Final EIS (October 1994).

Average income of affected civilian personnel: \$29,000
(price deflator): 126.30

Also derived from data used in the Final Environmental Impact Statement

Percent of affected civilian personnel expected to relocate: 50.0%

Mr. Roger Staab (Base Transition Coordinator-Sacramento Army Depot) generated a summary of attrition and job loss due to closure of SADA⁴. From this data it is estimated that between 30 percent and 80 percent of jobs left the region due to the closure. We are assuming here that an overall 50 percent relocation rate is defensible.

Change in military employment: -354.00

Based on the total number of military personnel at the depot in the base year (1990)⁵.

Average income of affected military personnel: \$27,500
(price deflator): 126.30

Reported as the average income of military personnel in the base year (1990) in the Final Environmental Impact Statement for the Reuse and Disposal of the Depot⁶.

Percent of affected military living on-post: 0.00%

We assume everyone lived off-post.

3. Analyze the impacts. With this set of assumptions in-hand the Standard EIFS Forecast Model generated the following impacts:

⁴ Fax Transmittal from DoD BTFO-SADA, 29 Dec 1994, Subject: Summary of Attrition and Job Loss Due to Closure of Sacramento Army Depot (SADA).

⁵ *Sacramento Army Depot Disposal and Reuse Final EIS* (Appendix D, October 1994).

⁶ *Sacramento Army Depot Disposal and Reuse Final EIS* (Appendix D, October 1994)

***** STANDARD EIFS MODEL FORECAST RESULTS *****

Export income multiplier:	2.8715	
Change in local		
Sales volume	Direct:	-\$152,399,000
	Induced:	-\$285,209,000
	Total:	-\$437,607,000
Employment	Direct:	-1,292
	Total:	-7,250
Income	Direct:	-\$24,688,000
	Total (place of work):	-\$172,382,000
	Total (place of residence):	-\$172,382,000
Local population		-4,750
Local off-base population		-4,750
Number of school children		-787
Demand for housing .	Rental:	-880
	Owner occupied	-1,067
Government expenditures.....		-\$18,747,000
Government revenues		-\$22,377,000
Net Government revenues		-\$3,631,000
Civilian employees expected to relocate		-1,593
Military employees expected to relocate		-354

As one can easily see by the numbers in bold above, a total closure of the Depot without any plan for reuse has an adverse impact on the region. Whether this change is statistically significant is another question. In fact, holding all other things constant, this closure does not represent a significant impact to the region using the Rational Threshold Value (RTV) analysis to determine significance. (See Attachment A1 for printout of the EIFS RTV run.) The RTV model provides threshold values to assess the magnitude of an actions impacts⁷ by determining historical deviations (since 1969) for business volume, employment, personal income and population. Table A1 illustrates the results of the RTV analysis:

Table A1. Summary of RTV Results for a Full Closure of Sacramento Army Depot.

	Max. Hist. Negative Deviation (RTV) %	% Change (EIFS)	Significant Change?
Business Volume	-7.010	-1.540	no

⁷ For more information on the RTV consult pages 42-51 of the *EIFS User's Manual* (USACERL Technical Report TA-94/03, July 1994).

Employment	-2.515	-1.005	no
Personal Income	-3.482	-0.624	no
Population	-1.601	-0.352	no

As can be seen from Table A1, holding all other things constant, the closure of the Depot posed an adverse impact, but not a significant impact by historical standards. Cumulative economic impacts created by the additive effect of other adverse employment actions in the region were not calculated due to time and data constraints, in addition to the need to utilize more sophisticated assumptions or modeling techniques. If one considered the cumulative economic impacts in the region, it is possible that the total closure of the Depot could result in significant changes in the regional economy. It is, however, safe to conclude that the closure of the Depot has led to a substantial adverse economic impact on the region.

Potential for Economic Recovery After the EDC of the Property to the City of Sacramento

In an attempt to illustrate the potential for economic recovery after the EDC, the EIFS standard forecast model was again employed. This forecast made the following assumptions:

1. The region of influence remains the same.
2. The total employment on the Depot remains the same as the base year, but now we eliminate 186 civilian jobs ($3186 - 186 = 3000$ or the total projected employment referenced in the application) and also eliminate the 354 military jobs.
3. The average annual income of the civilian and military employees remains the same (Civ=\$29,000 and Mil=\$25,700). This methodology does tend to underestimate the total income effects, because the projected annual salaries of the Packard Bell employees will be less than \$29,000. By underestimating the income in this case, the net recovery will tend to be overstated.
4. The leakage factors and assumptions used to generate the change in local expenditures remains the same (0.799 for civilians and 0.709 for military).
5. One hundred percent of these former employees will relocate out of the region.
6. None of the military employees live on-post.

The following EIFS standard forecast model results illustrate what the effect of closing the base, only partially, will have on total sales volume, total employment, total income, etc.

Assumptions:

Deflators: (EIFS default deflators were used base year = 1987)
 (price deflator for baseline year (ex b.v.)): 100.00
 (price deflator for output (ex b.v.)): 126.30

(price deflator for baseline year (BV)): 100.00

(price deflator for output (BV)): 115.70

Change in expenditures for local services and supplies: \$-11,211,921

(price deflator): 115.70

Change in civilian employment: -186.00

Average income of affected civilian personnel: \$29,000

(price deflator): 126.30

Percent of affected civilian personnel expected to relocate: 100.0%

Change in military employment: -354.00

Average income of affected military personnel: \$27,500

(price deflator): 126.30

Percent of affected military living on-post: 0.00%

***** STANDARD EIFS MODEL FORECAST FOR Partial Closure *****

Export income multiplier:	2.8715	
Change in local		
Sales volume Direct:	-\$19,546,000	
Induced:		-\$36,579,000
Total:		-\$56,124,000
Employment Direct:		-166
Total:		-1,016
Income Direct:	-\$3,166,000	
Total (place of work):		-\$24,221,000
Total (place of residence):		-\$24,221,000
Local population:	-1,333	
Local off-base population:	-1,333	
Number of school children:	-223	
Demand for housing . Rental:	-303	
Owner occupied:		-237
Government expenditures.....:		-\$3,211,000
Government revenues:	-\$4,033,000	
Net Government revenues:	-\$822,000	
Civilian employees expected to relocate:		-186
Military employees expected to relocate:		-354

It is apparent from the numbers in bold type that the partial closure of the Depot has a much less adverse economic impact on the region. To attempt to quantify the amount of economic recovery after the EDC, one can simply calculate the difference between the full closure scenario and the partial closure scenario. These numbers illustrate a net "recapture rate" of the relevant variables. Table A2 quantifies this projected recovery.

Table A2. Projected Economic Recovery to the Sacramento Region After the EDC.

	Full Closure	Partial Closure	Amount Recovered
Total Sales Volume	\$437,607,000	\$56,124,000	\$381,483,000
Total Employment (jobs)	7250	1016	6234
Total Income	\$172,383,000	\$24,221,000	\$148,162,000
Net Government \$\$\$	\$3,631,000	\$822,000	\$28,090,000

As one can see in Table A2, the potential for economic recovery if the EDC application is approved is significant. As mentioned earlier, however, these figures are slightly inflated, but they demonstrate a relative order of magnitude present if the number and types of created by Packard Bell are, in fact, created. These numbers would turn down slightly if the average annual wage of the employee that replaces the former civilian Depot employee is lower - and this will probably be the case as evidenced from the annual payroll figures cited in the application.

Conclusions

The State of California and the Sacramento area are in an ever-changing economic climate. This climate is very difficult to capture and model accurately in the absence of substantial, current local data and sophisticated modeling techniques. Additional economic impact scenarios are presented in the Sacramento Army Depot Disposal and Reuse Final EIS (October 1994) which can provide additional insights into the potential for economic recovery as well as the impact of the closure generally. The approach taken in this study does provide a defensible approach to forecasting the aggregate economic effects associated with the reuse action as characterized in the City of Sacramento's EDC application. "Common sense" indicates that full utilization of the Depot by Packard Bell Electronics will facilitate a substantial economic recovery after the adverse impacts associated with the closure of the Depot. The analysis presented above confirms this fact. Moreover, the Depot is located in an industrial area of the City that is currently experiencing 13.5 percent unemployment rates. The applicant intends to focus employment opportunities in this region. If this is successful, the economic impacts to the area immediately surrounding the Depot will be significant.

Attachment A1: Rational Threshold Value Analysis for the Sacramento Region

All dollar amounts are in thousands of dollars. Dollar adjustment based on Consumer Price Index (1987=100).

BUSINESS VOLUME (using Non-Farm Income)

YEAR	Non-Farm income	adjusted income	change	deviation	%deviation
1969	2,528,698	7,481,355			
1970	2,748,093	7,676,238	194,882	-296,757	-3.967 %
1971	2,983,735	7,999,290	323,052	-168,587	-2.196 %
1972	3,311,699	8,579,531	580,242	88,602	1.108 %
1973	3,651,392	8,905,834	326,303	-165,337	-1.927 %
1974	4,021,957	8,839,466	-66,368	-558,007	-6.266 %
1975	4,458,753	8,971,334	131,868	-359,771	-4.070 %
1976	5,055,540	9,629,600	658,266	166,627	1.857 %
1977	5,688,407	10,176,041	546,441	54,802	0.569 %
1978	6,552,892	10,885,203	709,162	217,522	2.138 %
1979	7,432,730	11,093,627	208,424	-283,215	-2.602 %
1980	8,027,357	10,548,433	-545,194	-1,036,834	-9.346 %
1981	8,659,609	10,321,345	-227,087	-718,726	-6.814 %
1982	9,203,922	10,353,118	31,772	-459,867	-4.455 %
1983	10,032,611	10,952,632	599,514	107,875	1.042 %
1984	11,366,110	11,989,567	1,036,935	545,296	4.979 %
1985	12,819,073	13,067,353	1,077,786	586,147	4.889 %
1986	14,233,031	14,749,255	1,681,902	1,190,263	9.109 %
1987	15,683,792	15,683,792	934,537	442,898	3.003 %
1988	17,026,540	16,371,673	687,881	196,242	1.251 %
1989	18,849,694	17,293,297	921,624	429,985	2.626 %
1990	21,056,958	18,358,290	1,064,993	573,353	3.315 %
1991	22,036,544	18,456,067	97,777	-393,862	-2.145 %
1992	23,072,964	18,789,058	332,991	-158,648	-0.860 %

average yearly change: 491,639
maximum historic positive deviation: 1,190,263
maximum historic negative deviation: -1,036,834
maximum historic % positive deviation: 9.109 %
maximum historic % negative deviation: -9.346 %
positive rtv: 9.109 %
negative rtv: -7.010 %

PERSONAL INCOME

YEAR	Personal income	adjusted income	change	deviation	%deviation
1969	3,342,339	9,888,577			
1970	3,683,102	10,287,995	399,417	-295,718	-2.990 %
1971	4,014,541	10,762,845	474,850	-220,285	-2.141 %
1972	4,417,118	11,443,311	680,467	-14,669	-0.136 %
1973	4,915,044	11,987,912	544,601	-150,534	-1.315 %
1974	5,568,353	12,238,138	250,226	-444,909	-3.711 %
1975	6,237,604	12,550,511	312,372	-382,763	-3.128 %
1976	6,995,702	13,325,147	774,636	79,501	0.633 %
1977	7,877,872	14,092,794	767,647	72,512	0.544 %
1978	9,108,693	15,130,719	1,037,925	342,790	2.432 %
1979	10,460,456	15,612,621	481,902	-213,233	-1.409 %
1980	11,792,677	15,496,291	-116,330	-811,465	-5.197 %
1981	12,909,104	15,386,298	-109,993	-805,128	-5.196 %
1982	13,753,641	15,470,912	84,614	-610,521	-3.968 %
1983	14,813,185	16,171,600	700,688	5,552	0.036 %
1984	16,580,484	17,489,961	1,318,362	623,227	3.854 %
1985	18,433,949	18,790,978	1,301,016	605,881	3.464 %
1986	20,168,149	20,899,636	2,108,658	1,413,523	7.522 %
1987	21,868,850	21,868,850	969,214	274,079	1.311 %
1988	23,598,421	22,690,789	821,939	126,804	0.580 %
1989	26,060,159	23,908,403	1,217,613	522,478	2.303 %
1990	28,820,271	25,126,654	1,218,251	523,116	2.188 %
1991	30,107,060	25,215,293	88,639	-606,496	-2.414 %
1992	31,776,571	25,876,686	661,393	-33,742	-0.134 %

average yearly change: 695,135
 maximum historic positive deviation: 1,413,523
 maximum historic negative deviation: -811,465
 maximum historic % positive deviation: 7.522 %
 maximum historic % negative deviation: -5.197 %
 positive rtv: 7.522 %
 negative rtv: -3.482 %

EMPLOYMENT

YEAR	Employment	change	deviation	%deviation
1969	351,546			
1970	360,289	8,743	-12,907	-3.672 %
1971	368,417	8,128	-13,522	-3.753 %

1972	385,225	16,808	-4,842	-1.314 %
1973	400,373	15,148	-6,502	-1.688 %
1974	417,184	16,811	-4,839	-1.209 %
1975	431,320	14,136	-7,514	-1.801 %
1976	449,658	18,338	-3,312	-0.768 %
1977	471,559	21,901	251	0.056 %
1978	504,520	32,961	11,311	2.399 %
1979	531,615	27,095	5,445	1.079 %
1980	542,071	10,456	-11,194	-2.106 %
1981	557,438	15,367	-6,283	-1.159 %
1982	565,661	8,223	-13,427	-2.409 %
1983	584,015	18,354	-3,296	-0.583 %
1984	616,286	32,271	10,621	1.819 %
1985	654,294	38,008	16,358	2.654 %
1986	683,312	29,018	7,368	1.126 %
1987	721,616	38,304	16,654	2.437 %
1988	762,121	40,505	18,855	2.613 %
1989	799,914	37,793	16,143	2.118 %
1990	847,353	47,439	25,789	3.224 %
1991	851,441	4,088	-17,562	-2.073 %
1992	849,498	-1,943	-23,593	-2.771 %

average yearly change: 21,650
 maximum historic positive deviation: 25,789
 maximum historic negative deviation: -23,593
 maximum historic % positive deviation: 3.224 %
 maximum historic % negative deviation: -3.753 %
 positive rtv: 3.224 %
 negative rtv: -2.515 %

POPULATION

YEAR	Population	change	deviation	%deviation
1969	827,400			
1970	852,000	24,600	-7,396	-0.894 %
1971	876,000	24,000	-7,996	-0.938 %
1972	902,700	26,700	-5,296	-0.605 %
1973	905,800	3,100	-28,896	-3.201 %
1974	927,300	21,500	-10,496	-1.159 %
1975	948,900	21,600	-10,396	-1.121 %
1976	971,100	22,200	-9,796	-1.032 %
1977	1,000,100	29,000	-2,996	-0.308 %
1978	1,040,800	40,700	8,704	0.870 %

1979	1,071,600	30,800	-1,196	-0.115 %
1980	1,107,200	35,600	3,604	0.336 %
1981	1,136,000	28,800	-3,196	-0.289 %
1982	1,173,600	37,600	5,604	0.493 %
1983	1,201,500	27,900	-4,096	-0.349 %
1984	1,228,100	26,600	-5,396	-0.449 %
1985	1,263,800	35,700	3,704	0.302 %
1986	1,299,000	35,200	3,204	0.254 %
1987	1,348,400	49,400	17,404	1.340 %
1988	1,397,900	49,500	17,504	1.298 %
1989	1,446,000	48,100	16,104	1.152 %
1990	1,495,500	49,500	17,504	1.211 %
1991	1,540,000	44,500	12,504	0.836 %
1992	1,563,300	23,300	-8,696	-0.565 %

average yearly change: 31,996
 maximum historic positive deviation: 17,504
 maximum historic negative deviation: -28,896
 maximum historic % positive deviation: 1.340 %
 maximum historic % negative deviation: -3.201 %
 positive rtv: 1.340 %
 negative rtv: -1.601 %

Source: Bureau of Economic Analysis

Appendix B: Extent of Short- and Long-term Jobs Generated by the EDC

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Introduction

The objective of this appendix is to evaluate the extent of the short- and long-term jobs generated by the conveyance of SADA to the City of Sacramento. The terms of the economic development conveyance (EDC) are described in the City of Sacramento's EDC application dated 10 November 1994. More specifically, this review focuses upon the part of the application entitled "Job Creation."

Approach

First, the present and the past performance of Packard Bell was analyzed. Second, market past and future growth was examined. Third, future performance of the company was projected over the market forecast. Fourth, the job generation estimated by the City of Sacramento was compared with our estimates.

Overall Findings

Although this market is changing rapidly and is highly volatile, **Packard Bell's projection of employing 3,000 people at SADA in the short-run is sound and feasible.** The number of persons currently working at Packard Bell in the Westlake Village area is estimated to be 2,526 in November 1994 (Attachment B1, 29 November 1994 Memorandum). Of all these jobs, only 1,326 were full-time positions while the rest were open positions. The estimated annual payroll at that time was \$60 million. Assuming that the company keeps its current market share (43 percent), and assuming a 21 percent market growth, Packard Bell will probably reach the estimated 3,000 jobs in 1995. The estimated annual payroll of Packard Bell under this scenario will be \$72 million, which falls within the \$60 to \$80 million projected by the City of Sacramento in the EDC application.

The City of Sacramento estimates that the secondary economic impact of Packard Bell's activity at SADA will generate an additional 2,000 to 2,500 jobs and \$40 to \$60 million in additional income. These estimates are in line with the projected impact using the EIFS model (see Attachment B2). Our model estimates a secondary effect of an additional 2,700 jobs and a secondary income effect of \$66 million. These differences between the City's estimate and our estimates are negligible.

Although the estimated relocation of 1,200 to 1,300 permanent jobs from the Los Angeles area seems a little high, a lower estimate will not have a considerable net effect. Packard Bell currently employs 1,326 full-time persons and to expect that most of them will relocate seems unrealistic. Since these jobs are the high paying positions, the new employees hired to fill the positions left open by the non-relocating employees will come from all over the country including Sacramento. The final effect in Sacramento's economy is the same whether they come from LA or elsewhere.

The City of Sacramento estimates that between 750 and 1,250 of the jobs will be entry level jobs in permanent positions with benefits. Currently, 47 percent of Packard Bell's work force is in open positions (Attachment 2). Assuming that Packard Bell keeps the same labor structure, over 1,400 will be open positions and around 1,600 will be full-time positions. Also, since some of the success of the company comes from having a low production cost, we expect these entry level jobs to be open positions with minimum benefits.

Finally, the City of Sacramento estimates that Packard Bell will be hiring between 1,700 and 1,800 new permanent employees. This estimate seems too high. Since between 1,200 and 1,300 permanent jobs were relocating into Sacramento, this puts the number of new permanent employees to be hired at the most 400 (1,600 - 1,200). In other words, we estimate that the number of "new" permanent employees, in the short-run, will be around 400, and not between 1,700 and 1,800. In the long-run, Packard Bell may well create between 1,700 and 1,800 new permanent jobs by either keeping its present growth level, or by changing its current labor structure.

About Packard Bell

Since most of the new jobs contemplated in this proposal are generated by Packard Bell (PB) moving into the installation right away, any estimate of the number of jobs that will be generated requires an analysis of this company's present and future performance. Packard Bell's genuine interest in moving into SADA immediately comes from their tremendous growth in the last few years manufacturing microcomputers for the home consumer market. It is estimated that Packard Bell shipped 430,000 computers in the first quarter of 1994 compared with 200,000 during the same period last year (WSJ, 14 June 1994). Packard Bell is a privately held company and does not disclose financial information.

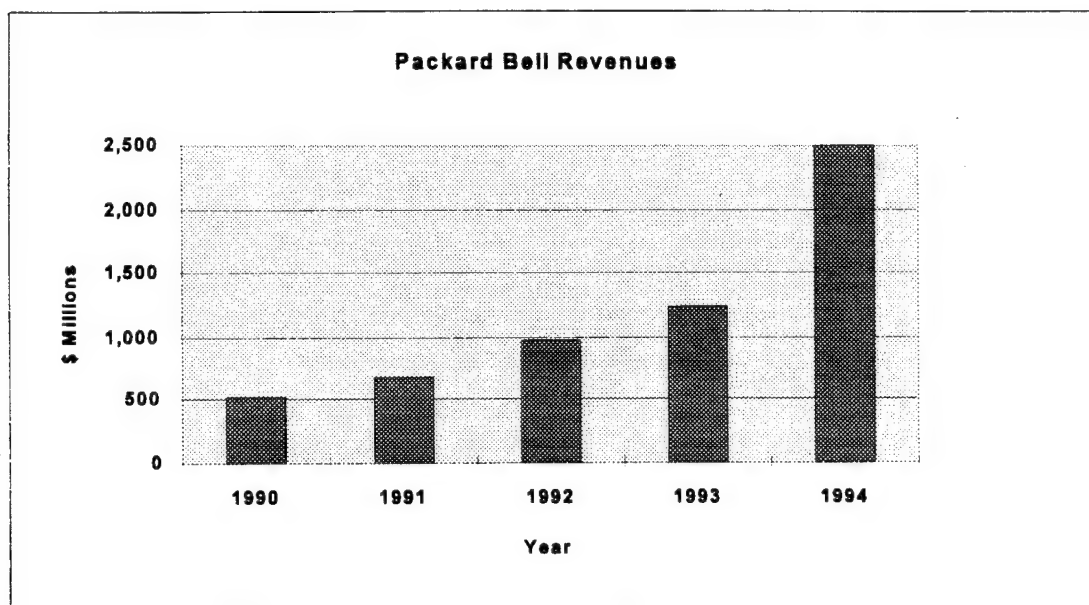


Figure B1. Packard Bell revenues, 1990 through 1994.

Packard Bell Electronics, Inc., was founded by Beny Alagem, Alex Sandel, and Jason Barzilay in 1986 after buying the name Packard Bell from Teledyne, Inc. Its estimated sales for 1994 are \$ 2.5 billion, which represents a 100 percent increment over its 1993 sales of \$1.2 billion (NYT, 23 October 1994) (see Figure B1). Last time that PB published its profit and loss report was in 1992 when the company proposed a public offering. The prospectus showed that the company lost \$798,000 on \$675 million of sales in 1991 and that it made a profit of \$8.5 million on sales of \$518 million in 1990. Currently, Packard Bell has manufacturing plants in Westlake Village, CA, Wizchen, Netherlands, and Angers, France.

PB's public offering was not well received by investors because of the high level of returns reported, 17 percent of gross sales in 1991, and the company withdrew it. Analysts agree that the level of returns in the consumer market is higher than the level of returns in the corporate PC market. In general, between 10 and 15 percent of everything sold is returned in the consumer electronics market. PB claimed that only 2 percent were really defective merchandise and that the rest was returned because buyers were disappointed, confused, or wanted something else (Business Week, 5 July 1993).

To grow that fast without access to the stock market (100 percent sales growth in 1994, 30 percent in 1993 and 37 percent in 1992), PB sold 20 percent stake to Zenith Data Systems in 1993. In turn, Zenith Data is 100 percent owned by Groupe Bull, a French computer manufacturer fully owned by the French government. In other words, 20 percent of Packard Bell is owned by the French government. In 1994 Packard Bell received \$225 million in financing from Congress Financial Corporation and \$50 million from private investors.

Market Analysis

The main reason for Packard Bell's rapid success is that the company has sold its computers exclusively in the consumer market through large retailers like Wal-Mart, Sears, and Circuit City. By targeting their computers for the consumer market and by accurately predicting what the average consumer wanted, PB conquered 43 percent of the PC retail market. Its closest competitor is IBM, with only 19 percent of the market. In addition, the consumer PC market is growing at a 21 percent annual rate, while the corporate PC market is only growing at a 9 percent annual rate. In summary, PB is in the right market with the right product, and its rapid growth has surprised both experts and competitors.

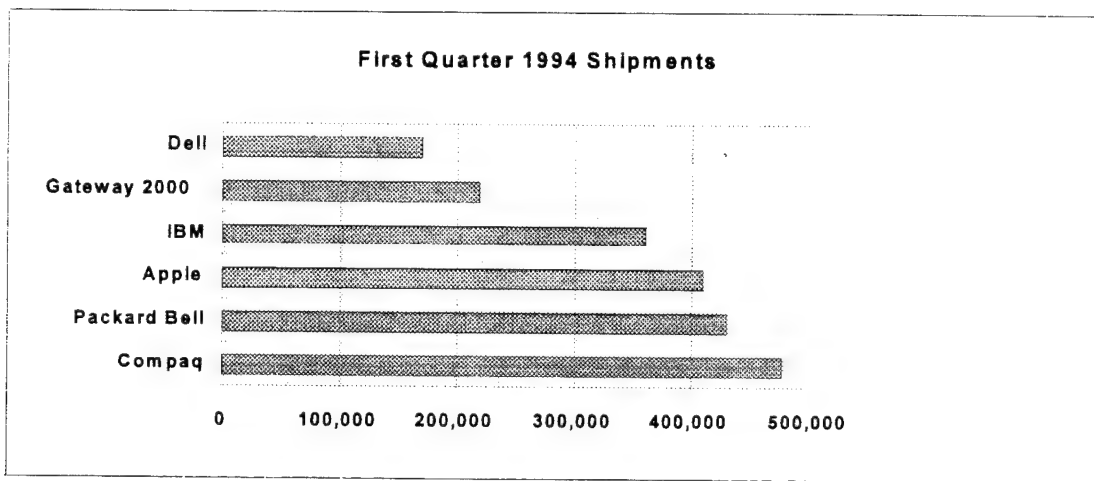


Figure B2. First quarter 1994 shipments for six computer manufacturers.

The major threat to Packard Bell's dominant position in the consumer electronics market comes from IBM, Compaq, and Apple, all of whom are moving into this market more aggressively. To overcome this future threat, PB has designed and marketed startup software reported to be superior to that of its competitors (BW, 2 October 1994). Its future strategy involves increasing exports and keeping its production cost down. Its current ties with Groupe Bull may significantly help increase PB's presence in the European market.

Packard Bell has a dominant position in a fast growing market and the company has shown a surprising capability to foresee consumer demands. Long-term predictions in this market are highly speculative. Of all competitors in the home computer market, only IBM was active 10 years ago. Of all the other companies that supplied the home computer market then—Tandy, Commodore, Texas Instrument, Atari, and Apple—only Apple is still supplying it.

References

"Packard Bell, In Shift, Plans To Distribute Software in Stores"; Wall Street Journal (Eastern Edition); 14 November 1994, p B8.

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"Packard Bell To Introduce a Jack-of-all-trades PC"; New York Times (Late New York Edition); 14 June 1994, p D6.

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Armstrong, Larry; "TI Packard Bell Discovers a Bon Ami (Cash Infusion From Groupe Bull)"; Business Week; 5 July 1993, p 103+.

Hayes, Thomas-C; "TI Zenith Data and Packard Bell in Deal for New PCs"; New York Times (Late New York Edition); 23 June 1993, p D3.

Ortega, Bob; "TI Bull's Zenith To Buy 19.9 Percent of Packard Bell"; Wall Street Journal (Eastern Edition); 23 June 1993, p A4.

Attachment B1: 29 November 1994 Memorandum



OFFICE OF THE
CITY MANAGER

OFFICE OF ECONOMIC DEVELOPMENT

CITY OF SACRAMENTO
CALIFORNIA

CITY HALL
ROOM 301
915 I STREET
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95814-2696

November 29, 1994

916-264-7730
FAX 916-264-8161

MEMORANDUM

TO: Susan Krinks

FROM: Bill Farley *BF*

SUBJECT: Background Information on EDC Application

1. 3,000 jobs - Payroll of \$60 to \$80 million

Attached is proprietary information from Packard Bell that lists the type of positions that are currently in their Los Angeles facility. The listing identifies 1,326 current full-time positions and 1,200 open positions for a total of 2,526. The payroll of \$60 million comes from the attached 5-month balance sheet. For a five month period Packard Bell had a payroll of \$25 million or \$5 million per month - this equates to \$60 million per year.

The 3,000 job and \$80 million estimates come from projected growth of the company based on sales estimates. The attached chart illustrates the projected growth. The 1994 estimates are on track and have resulted in additional hires. The 1995 estimates project \$3.0 to \$4.0 billion in sales.

Based on the 1995 projections, we estimate that they will increase the work force by 20% or 500 employees. In addition, we believe the conversion of hourly employees to full-time staff will result in a payroll that is 30% higher than current expenditures.

Please return all of these attachments to me immediately upon completion of your review as they are proprietary information of Packard Bell.

2. Explanation for \$6.2 million in the EDC

See attached.

Attachment B2: Two Standard EIFS Model Forecasts**50 percent of the new jobs are filled by out-of-town people.**

Functional area: 1 Project name: Sacramento 50%

Deflators: (EIFS default deflators were used)

(price deflator for baseline year (ex b.v.)): 100.00

(price deflator for output (ex b.v.)): 126.30

(price deflator for baseline year (BV)): 100.00

(price deflator for output (BV)): 115.70

Change in expenditures for local services and supplies: \$57,600,000

(price deflator): 115.70

Change in civilian employment: 3000.00

Average income of affected civilian personnel: \$24,000

(price deflator): 126.30

Percent of affected civilian personnel expected to relocate: 50.0%

Change in military employment: 0.00

Average income of affected military personnel: \$0

(price deflator): 126.30

Percent of affected military living on-post: 0.00%

***** STANDARD EIFS MODEL FORECAST FOR Sacramento 50% *****

Export income multiplier: 2.8715

Change in local

Sales volume	Direct:	\$110,630,000	
	Induced:	\$207,039,000	
	Total:	\$317,669,000	(1.118%)

Employment	Direct:	938	
	Total:	5,693	(0.789%)

Income	Direct:	\$17,922,000	
	Total (place of work):	\$123,461,000	
	Total (place of residence):	\$123,461,000	(0.447%)

Local population 3,643 (0.270%)

Local off-base population 3,643

Number of school children 600

Demand for housing Rental: 616

Owner occupied: 884

Government expenditures.....: \$15,028,000

Government revenues: \$16,348,000

Net Government revenues: \$1,320,000

Civilian employees expected to relocate: 1,500

Military employees expected to relocate: 0

33 percent of the new jobs are filled by out of town.

Functional area: 1 Project name: 33

Deflators: (EIFS default deflators were used)

(price deflator for baseline year (ex b.v.)): 100.00

(price deflator for output (ex b.v.)): 126.30

(price deflator for baseline year (BV)): 100.00

(price deflator for output (BV)): 115.70

Change in expenditures for local services and supplies: \$57,600,000

(price deflator): 115.70

Change in civilian employment: 3000.00

Average income of affected civilian personnel: \$24,000

(price deflator): 126.30

Percent of affected civilian personnel expected to relocate: 33.0%

Change in military employment: 0.00

Average income of affected military personnel: \$0

(price deflator): 126.30

Percent of affected military living on-post: 0.00%

***** STANDARD EIFS MODEL FORECAST FOR 33 *****

Export income multiplier:	2.8715
Change in local	
Sales volume	Direct: \$110,630,000
	Induced: \$207,039,000
	Total: \$317,669,000 (1.118%)
Employment	Direct: 938
	Total: 5,693 (0.789%)
Income	Direct: \$17,922,000
	Total (place of work): \$123,461,000
	Total (place of residence): \$123,461,000 (0.447%)
Local population	2,404 (0.178%)
Local off-base population	2,404
Number of school children	396
Demand for housing ...	Rental: 406
	Owner occupied: 584
Government expenditures.....	\$13,034,000
Government revenues	\$14,694,000
Net Government revenues	\$1,660,000
Civilian employees expected to relocate:	990
Military employees expected to relocate:	0

Appendix C: EDC Application's Consistency With the Overall Redevelopment Plan

Prepared by:

William V. Cork - Community Planner

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Background

The Reuse Plan for Sacramento Army Depot⁸ prepared by the City of Sacramento's Sacramento Army Depot Reuse Commission is an exemplary plan incorporating a comprehensive set of planning issues. The plan provides detailed background information, a broad vision with goals and objectives, and a discussion of opportunities and constraints related to redevelopment. In addition, the reuse plan develops specific development recommendations based on a thorough market analysis and strategy, infrastructure considerations and ultimately a preferred land use plan. There are at least two ways this document should be used: (1) to capture the spirit and intent of the Local Redevelopment Authority's (LRA's) development strategy, and (2) to provide a specific approach to redevelopment. From the entire application package presented by the LRA and from other information collected with respect to this action, it can be determined that the EDC is consistent with the overall reuse plan. However, Section 1.E of the 10 November 1994 EDC application fails to fully develop both the similarities and the differences between the proposed conveyance request and the reuse plan. Upon review of the application, a study of the action, and review of the redevelopment plan, the following conclusions can be drawn.

⁸ Sacramento Army Depot Reuse Commission-City of Sacramento, *Reuse Plan for Sacramento Army Depot* (Approved June 20, 1994)

Conclusions

The application captures the spirit and intent of the Reuse Plan by meeting the following goals and objectives:

- a. The proposed reuse diversifies the Sacramento economy by providing up to 3000 high-tech jobs while simultaneously meeting the needs of several important public interests.
- b. The proposed reuse facilitates employment opportunities for displaced Depot employees and other local employees by creating a reuse similar to the past mission of the Depot.
- c. The proposed reuse will provide jobs that will increase income levels for Sacramentans and begin to substantially recover lost sales, tax and other revenues.
- d. The proposed reuse will accomplish the highest and best use for most of the improved property on the Depot (light industrial use) and will create a quality environment compatible with surrounding land uses.
- e. The proposed reuse and corresponding financing arrangements maximize the immediate ability to support infrastructure improvements and operational costs.

The application is consistent with the Reuse Plan's marketing strategy and implementation plan as follows:

- a. Three user groups were identified in the Reuse Plan as being prime targets for location/relocation at the Depot; telecommunications firms, food processing firms and high-technology industries. Packard Bell Electronics is a world-class high-tech computer manufacturing/assembly operation which meets the reuse plan's target industry goals.
- b. Packard Bell will utilize a substantial portion of the warehouse and office space, simplifying the LRA's efforts to redevelop the Depot and reducing the risk and effort associated with attempting to parcel out the base for piecemeal sale.
- c. The application endorses the Public Benefit and McKinney Act conveyances of the Military Enclave, Foodlink, and CSUS parcels. These concerns are articulated in the Reuse Plan.
- d. The application proposes to site the industrial and public benefit activities on parcels of land that are consistent with the proposed land use plan for the Depot.

Inconsistencies:

The application does not discuss inconsistencies with the Reuse Plan, and specifically does not address issues such as phasing, allowed/prohibited uses, height and area requirements, parking standards, landscaping, building orientation, lighting, loading and service areas, building design (for new buildings), etc. While these issues are predominantly city concerns after the property is conveyed, it might be important for the Army to know if substantial variances will be granted from the Reuse Plan, which may affect continuing Federal interests in the adjacent parcels.

Overall, the EDC request is consistent with the Reuse Plan.

Appendix D: Market and Financial Feasibility Analysis

Prepared by:

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References and Sources

1. Reuse Plan for Sacramento Army Depot (June 1994).
2. City of Sacramento's Application for the Economic Development Conveyance of the Sacramento Army Depot (August 4, 1994).
3. Revised Economic Development Conveyance Application from the City of Sacramento (November 10, 1994).
4. Iliff, Thorn & Company, Sacramento 1993 Industrial Market Summary.
5. CB Commercial Real Estate Group, Inc., 1994 Third Quarter Industrial Vacancy & Gross Absorption (Sacramento area) and 1988-1994 Quarterly Industrial Vacancy and Gross Absorption.
6. Grubb & Ellis Commercial Real Estate Services, Sacramento Industrial Market 3rd Quarter 1994 Summary.
7. Bank of America, Sacramento Commercial Appraisal Region #3813, December 1994.
8. Combined Loan Agreement between Packard Bell (Borrower) and The City of Sacramento (Lender).

Market Analysis

Background

1. Sacramento Army Depot property consists of approximately 2.9 million sq. ft. of industrial buildings situated on 485 acres within the submarket area known as the Power Inn area. According to the Iliff, Thorn & Company's 1993 Industrial Market Summary, the Power Inn submarket is comprised of 522 private sector industrial buildings totaling over 15.8 million sq. ft. of Sacramento's total 99.9 million sq. ft. At the end of 1993 the area experienced a vacancy rate of 18.6 percent or 2.9 million sq. ft. of vacant industrial building space. The 1993 vacancy rate was up from the 1992 level of 16.4 percent and was a 7 year high compared to the 7 year low of 11.25 percent in 1989.
2. Average industrial building rental rates on transactions in the overall Sacramento market area ranged from \$.17 to \$.22 per sq. ft. per month for 100,000 sq. ft. plus buildings according to Iliff, Thorn & Company's 1993 Summary. Rates are industrial gross that includes base rent and common area maintenance (CAM) and reflect a limited supply of larger buildings. Leasing activity for buildings of 100,000 sq. ft. plus consisted of eight transactions in 1993 (1.5 percent of 541 deals) totaling 1.1 million sq. ft. or an average of 139,000 sq. ft. per transaction.
3. In the Power Inn submarket, various sources have indicated market rental rates ranging from \$.12 to \$.35 per sq. ft. per month. Grubb & Ellis' 3rd Quarter 1994 Industrial Market Summary indicates asking rents ranging from \$.16 to \$.35 in the Power Inn area. Figures provided by Bank of America indicated rates in the area ranged from \$.18 to \$.23 and provided an example of a 76,400 sq. ft. industrial building leasing for \$.12 triple net per sq. ft. (base rent only; tenant pays insurance, taxes, and maintenance separately). While market sources do not attempt to define CAM charges or a range of per sq. ft. charges, the City's market survey results (Reuse Plan pp 5-10, 11) indicate CAM charges range from \$.032 to \$.055 per sq. ft. per month on industrial buildings less than 20,000 sq. ft.

Market Impact

1. Adding 2.9 million sq. ft. of Depot property to Power Inn's industrial space inventory will have a significant impact upon the market, whether it's virtually vacant or virtually occupied. Worse case scenario of adding 2.9 million sq. ft. of vacant space would result in over 30 percent vacancy rates for the area and further soften market rates.
2. The City's Reuse Plan should have a significantly positive impact on the real estate market and will provide momentum for their efforts to recruit other developments to the base, as well as the surrounding area.

Methodology for Calculating Market Impact

1. Table D1 provides details of the debt structuring of the loan/lease agreement between the City of Sacramento (City) and Packard Bell (private tenant, as well as the City's proposed second trust deed with the Army). In an effort to determine a market rental rate for the City's

- Industrial Development Lease with a private tenant, only costs associated with the building improvements and the resulting rent/debt payments were included. USACERL concluded that market rental rates would not reflect tenant relocation and moving expenses. The inclusion of rent associated with the \$9 million moving cost loan would artificially inflate the resulting rental rate by \$.109 to \$.072 per sq. ft. per month depending upon level of loan.
2. Table D2 provides a market and rental rate analysis detailing rents resulting from building improvements only in an effort to arrive at an equivalent triple net rental rate. Common area maintenance (CAM) per sq. ft. charges were included as a separate component to facilitate comparison of market rates that were both triple net, base rents only, and gross industrial that include CAM charges.
 3. The City's methodology (Attachment 3 of 10 November 1994 revised EDC Application) used in their Present Value Analysis: Occupancy is inconsistent with USACERL's. Apparently there was an attempt to provide a present value for the private tenants total occupancy costs over a 15-year period and equate the 15 year average to a current market rental rate. The analysis may be flawed due to a lack of understanding of present value and how to use the concept. For example, the City indicates a \$6.8 million purchase option with the private tenant in its cash flow projects, then calculates in the present value analysis a \$6.2 value for "Land Purchase." USACERL's calculation discounts the \$6.8 million purchase option in year 10 to a \$4.2 million present value with a 5 percent discount rate. In addition, infrastructure costs were included even though page 5 of the same document indicates the City is responsible for the private tenant's \$3.4 million share of off-site costs.

Findings—Market Impact

1. While a development of this magnitude could certainly establish its own market parameters, Table D2 demonstrates that the rental rate of the agreement falls within the market rates for the area.
2. The final rental rate will be determined based on level of building improvements. Thus a triple-net base rental rate range of \$.135 to \$.112 would result from the maximum improvement loan of \$20.5 million to the \$17.0 million original estimate. Adding those base rents to the City's estimated CAM charges of \$.097 per sq. ft. would result in a gross industrial market rental range of \$.231 to \$.208, which falls within current market rate estimates of \$.23 to \$.18. Another acceptable method would add the base rent of, say, \$.13 to a market CAM charge of, say, \$.05 and arrive at a gross industrial rate of \$.18 per sq. ft.
3. In addition, the market rental rate on a triple net basis (\$.135 to \$.112) is consistent with the City's original Reuse Plan forecasting \$.12 triple net lease rates for the redevelopment effort. The rental rate resulting from the agreement to redevelop 1.8 million sq. ft. should provide a positive impact on market rental rates in the area and help stabilize or reverse any downward trend.
4. Table D2 also demonstrates the positive impact the City's Reuse Plan has upon the area's vacancy rates. The City has commitments for nearly 87 percent of the Depot property, leaving only 392,933 sq. ft. for future development.

Market Feasibility

1. In determining the ultimate financial feasibility of a development, it is critical to first establish market feasibility. Is there sufficient market to absorb the development's offered space within the projected time frame and at the pro forma rate?
2. The City's Reuse Plan places the development well ahead of the curve and by virtue of the Industrial Development Lease Agreement, establishes market feasibility for the development. Attaining pre-base closure commitments for 87 percent of 2.9 million sq. ft. will provide the necessary momentum for the City to accomplish its redevelopment plan for the Depot.

Financial Feasibility Analysis

Methodology for Financial Feasibility Analysis

1. Tables D3 and D4 (City Financial Pro Forma- Cash Flow Projections) merely recasts the City's 15 year cash flow projections. The 15 year projections detail the City's operations revenue and expenses, as well as the capital required and net proceeds. This spreadsheet details the City's assumptions as to timing and amounts of incoming and outgoing dollars.
2. Table D5 develops return on investment (ROI) using internal rate of return (IRR) based on the City's financial assumptions. Calculating the net present value (NPV) at the IRR discounts the future values of the cash flows to equal the initial investment. Thus, an investor requiring an ROI of 6.76 percent would be willing to invest \$5 million ignoring leverage for cash flows in years 10 and 11 of \$6.8 (City uses \$6,860,700) and \$2.9 million. Discounting the cash flows to a present value (PV) of \$6.2 million would require a 4.55 percent discount rate.
3. Table D6 develops economic feasibility from the private tenant's perspective. What are the total acquisition and relocation costs associated with the facility development, and how do the costs compare to other market opportunities? Assumed acquisition costs at annual debt service on \$20.8 million improvement loan for the full term of the loan and \$6.8 million purchase option in year 10. Relocation costs were calculated at annual debt service for the maximum \$9 million moving expense loan for the full term. Annual costs were then discounted to present value and compared to market sales data. Available data indicated sales were on considerably smaller property.

Findings—Financial Feasibility

1. The City has projected net proceeds from the purchase option in year 10 (\$6.8 million) and additional development in year 11 (\$2.9 million). Discounting those future cash flows to present values (PV) at 5 percent, as the City suggests, results in a PV of \$5.9 million. A 4.55 percent discount rate would actually provide the \$6.2 million City estimate.
2. Assuming an initial investment of \$5 million for the purchase of the Depot property and returns of and on the investment in years 10 and 11 would result in an IRR of 6.76 percent to the City. This rate would be considered extremely low if compared to private sector

- investment standards, especially given the level of risk associated with real estate development.
3. The City, of course, will measure its overall return on investment by jobs created or retained, and the economic impact to the community from Packard Bell's \$60 to \$80 million payroll and location to the area.
 4. Fundamental to the development's economic viability is the private tenant's ability to pay the obligated rents. Risk assessment relating to that ability is beyond the scope of this analysis.
 5. However, an effort has been made to assess the likelihood of the tenant executing the purchase option in year 10, thus providing for long-term viability and financial feasibility of the development. Table D6 forecasts total acquisition and relocation costs at \$52.7 million through year 13. Discounting those annual costs to present value (PV) at a very conservative 5 percent discount rate results in a net present value (NPV) of the acquisition and relocation cost of \$38 million or \$21.13 per sq. ft. on the 1.8 million facility acquisition. A more realistic discount rate of 10 percent (cost of capital estimate) would produce a NPV of \$28.5 million or \$15.85 per sq. ft.
 6. The resulting range of acquisition costs per sq. ft. compares favorably with 1993 and 1992 sales activity data for industrial buildings in the Sacramento area. That data produced an average per sq. ft. acquisition cost of \$34.56 in 1993 on 70 sales totaling 2 million sq. ft. and \$33.41 in 1992 on 80 sales totaling 2.8 million sq. ft. Similar to the leasing transactions data, the average size of transactions is significantly smaller than subject property, averaging 28,000 sq. ft. in 1993 and 35,000 sq. ft. in 1992. The Power Inn submarket produced 14 transactions in 1993, totaling a mere 312,696 sq. ft. or an average of \$49.44 per sq. ft. In 1992 sales activity generated 21 transactions totaling 887,936 sq. ft. or an average of \$36.45 per sq. ft.
 7. Provided the facilities continue to meet the needs of the tenant or allow for expansion, adding a \$6.8 million purchase option in year 10 would be an insignificant addition to a very attractive and market competitive acquisition cost for the 1.8 million sq. ft. facility. The likelihood of Packard Bell executing the purchase option in year 10 is highly feasible given the attractive price.

Conclusions on Financial Feasibility

1. Traditional commercial real estate investment analysis requires the investor to make reasonable forecasts of potential gains and exercise sound judgment as to level of risk they are exposed to in an effort to determine the financial feasibility of the development. A technique to assist in this evaluation is the discounting of the forecasted future cash flows and the estimated residual value of the development at the end of the investment period back to an NPV. The rate of discount is determined by an assessment of the level of risk and can be equated to the required rate of return the investor seeks with similar investments.
2. The City of Sacramento's investment objective for SADA redevelopment, as it relates to the 1.8 million sq. ft. Packard Bell transaction, appears to be to break even on cash flows (both operating and capital expenditures) and to realize a negotiated purchase option in year 10. The objective relating to the public conveyance property is also to break even by passing through fair-share infrastructure and CAM charges to Foodlink and CSUS.

3. The City's objective for developing the remaining land and buildings is not clear from the revised EDC Application. The City merely forecasts a potential gain from sales of undeveloped land in year 11 of \$2.9 million. An inventory of land and buildings remaining, as well as a more detailed discussion of development potential, is necessary in order to assess the likelihood of the City realizing \$2.9 million from future development. The City could make the argument that a higher risk (increased discount rate) would be associated with a higher development potential for the remaining land and buildings.
4. Based on the findings of this study, the City's investment strategy and objectives appear to be reasonable and financially feasible.

Table D1. Debt structuring assumptions and calculations.

DEBT STRUCTURING ASSUMPTIONS & CALCULATIONS**ASSUMPTIONS-IMPROVEMENTS/RELOCATION**

1. City to provide loan of up to \$20,488,300 for private tenant's building improvements.
 - a. principal and interest starting January 1, 1996, maturing by October 1, 2007
 - b. 141 monthly payments with interest in arrears
 - c. annual interest rate is 9.54%
2. City to provide loan of up to \$9.0 million for private tenant's relocation and moving expenses.
 - a. interest only for 6 months then 60 monthly payments, interest in arrears
 - b. annual interest rate is at City's borrowing rate plus 1%, estimated to be 11% to private tenant
3. City has secured Industrial Development Lease and Option to Purchase agreement with private tenant.
 - a. terms of lease provide for monthly rent to equal total monthly debt service payments
 - b. tenant has \$6.8 million purchase option in year 10
 - c. total building area under lease is 1.8 million sq. ft. on 214 acres

CALCULATIONS

	IF MAX LOAN	IF \$17.0 MILLION LOAN	CITY PRO FORMA
For Tenant Improvements			
loan principal/total improvements	\$ 20,488,300	\$ 17,000,000	\$ 17,000,000
annual interest rate	9.54%	9.54%	12.52%
payment per period	\$ 242,174	\$ 200,942	\$ 228,702
term/number of periods	141	141	144
calculated payments per month	\$ 242,174.16	\$ 200,942.04	\$ 228,702.17
annual debt payments	\$ 2,906,090	\$ 2,411,304	\$ 2,744,426

	IF MAX LOAN	IF \$6.0 MILLION LOAN	CITY PRO FORMA
For Tenant Relocation			
loan principal/total moving expense	\$ 9,000,000	\$ 6,000,000	\$ 9,000,000
annual interest rate	11.00%	11.00%	13.71%
payment per period	\$ 195,682	\$ 130,455	\$ 208,057
term/number of periods	60	60	60
calculated payments per month	\$ 195,681.81	\$ 130,454.54	\$ 208,057.33
annual debt payments	\$ 2,348,182	\$ 1,565,454	\$ 2,496,688
TOTAL ANNUAL DEBT SERVICE	\$ 5,254,272	\$ 3,976,759	\$ 5,241,114

ASSUMPTIONS-TRUST DEED

1. City proposes to provide the Army with \$5.0 million second trust deed.
 - a. note due and payable in 10th year, one lump-sum payment
 - b. 3% interest rate compounded monthly
 - c. future value of note at year 10 is calculated at \$6,746,768

CALCULATIONS

	COMPOUNDED ANNUALLY	COMPOUNDED MONTHLY	COMPOUNDED MONTHLY
For 2ND Trust Deed			
purchase price/trust deed	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
interest rate per period	3.00%	0.25%	0.2567%
payment per period	\$ -	\$ -	\$ -
term/number of periods	10	120	120
calculated future value year 10	\$ 6,719,582	\$ 6,746,768	\$ 6,800,821

Table D2. Market analysis and rental rate.

MARKET ANALYSIS & RENTAL RATE**ASSUMPTIONS**

1. City has secured Industrial Development Lease and Option to Purchase agreement with private tenant.
 - a. terms of lease provide for monthly rent to equal total monthly debt service payments
 - b. tenant has \$6.8 million purchase option in year 10
 - c. total building area under lease is 1.8 million sq. ft. on 214 acres
2. An effort has been made to isolate facility costs and improvements verses moving and relocation costs to better reflect a true market rental rate in this analysis.
 - a. Only the cost relating to building improvements, estimated to range from \$17 to \$20.5 million, and the resulting tenant debt service/rent will be considered building rent for market rental rate comparisons.
3. Market information is provided by Liff, Thorn & Company's Sacramento 1993 Industrial Market Summary.
 - a. Base property is located in the Power Inn submarket, which has 522 industrial buildings totaling 15.8 million sq.ft.
 - b. market rental range is for the total Sacramento industrial market, rate is industrial gross (rent & CAM) from 1993 deals over 100,000 sq.ft.

CALCULATIONS

	IF MAX LOAN	IF \$17.0 MILLION LOAN	CITY PRO FORMA
For Tenant Improvements			
loan principal/total improvements	\$ 20,488,300	\$ 17,000,000	\$ 17,000,000
cost per sq.ft. on 1.8 million sq.ft.	\$ 11.38	\$ 9.44	\$ 9.44
total annual debt payments/annual rent	\$ 2,906,090	\$ 2,411,304	\$ 2,744,426
cost per sq.ft. per month on 1.8 million sq.ft.	\$ 0.135	\$ 0.112	\$ 0.127

	IF MAX LOAN	IF \$6.0 MILLION LOAN	CITY PRO FORMA
For Tenant Relocation			
loan principal/total moving expense	\$ 9,000,000	\$ 6,000,000	\$ 9,000,000
cost per sq.ft. on 1.8 million sq.ft.	\$ 5.00	\$ 3.33	\$ 5.00
total annual debt payments/annual rent	\$ 2,348,182	\$ 1,565,454	\$ 2,496,688
cost per sq.ft. per month on 1.8 million sq.ft.	\$ 0.109	\$ 0.072	\$ 0.116
TOTAL ANNUAL DEBT SERVICE	\$ 5,254,272	\$ 3,976,759	\$ 5,241,114
cost per sq.ft. per month on 1.8 million sq.ft.	\$ 0.243	\$ 0.184	\$ 0.243

MARKET INFORMATION	SQ.FT. RENTED	PERCENT RENTED	1993 SUBMARKET SUMMARY	
MARKET ACTIVITY			SQ.FT.	PERCENT
Private	1,800,000	61.16%		
Foodlink	600,000	20.39%		
CSUS	150,000	5.10%		
TOTAL RENTED/COMMITTED	2,550,000	86.65%	12,865,217	81.36%
AVAILABLE FOR DEVELOPMENT/VACANT	392,933	13.35%	2,947,688	18.64%
TOTAL BUILDING SQ. FT. ON BASE/MARKET	2,942,933	100.00%	15,812,905	100.00%

MARKET RATE	YEAR 1 HIGH EST.	PER SQ.FT. PER MONTH	YEAR 1 LOW EST.	PER SQ.FT. PER MONTH	1993 MARKET RANGE	
					HIGH	LOW
Rent - private tenant (improvements)	\$ 2,906,090	\$ 0.135	2,411,304	\$ 0.112		
Common Area Maintenance - private tenant	\$ 2,088,000	\$ 0.097	2,088,000	\$ 0.097		
TOTAL BUILDING OCCUPANCY	\$ 4,994,090	\$ 0.231	\$ 4,499,304	\$ 0.208	\$ 0.22	\$ 0.17

Table D4. City financial pro forma cash flow projections (capital) and summary.

CITY FINANCIAL PRO FORMA - CASH FLOW PROJECTIONS (CONTINUED)

CAPITAL	YEAR 1 1995	YEAR 2 1996	YEAR 3 1997	YEAR 4 1998	YEAR 5 1999	YEAR 6 2000	YEAR 7 2001	YEAR 8 2002	YEAR 9 2003	YEAR 10 2004	YEAR 11 2005	YEAR 12 2006	YEAR 13 2007	YEAR 14 2008	YEAR 15 2009
CAPITAL PROCEEDS															
Building Renovations															
Private	17,000,000														
On-site Infrastructure															
Private	0														
Foodlink	1,120,000														
CSUS	280,000														
Off-site Improvements															
Private/City	3,371,843														
Foodlink	1,123,948														
CSUS	280,987														
Land Sales															
Private	0														
TOTAL CAPITAL PROCEEDS	23,176,778	0	0	0	0	0	0	0	0	6,860,700	2,940,300	0	0	0	0
CAPITAL EXPENDITURES															
Building Renovations															
Private	17,000,000														
On-site Infrastructure															
Private	0														
Foodlink	1,120,000														
CSUS	280,000														
Off-site Mitigations															
Private/City	3,371,843														
Foodlink	1,123,948														
CSUS	280,987														
Land Purchases	0														
TOTAL CAPITAL EXPENDITURES	23,176,778	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET CAPITAL PROCEEDS	0	0	0	0	0	0	0	0	0	6,860,700	2,940,300	0	0	0	0
SUMMARY															
REVENUE/CAPITAL PROCEEDS															
TOTAL OPERATING REVENUE	2,958,000	8,287,854	8,379,256	8,473,400	8,570,369	6,173,559	6,276,433	6,382,393	6,491,532	6,603,945	6,719,731	6,838,990	4,217,401	4,343,923	4,474,240
TOTAL CAPITAL PROCEEDS	23,176,778	0	0	0	0	0	0	0	0	6,860,700	2,940,300	0	0	0	0
TOTAL REVENUE/PROCEEDS	26,134,778	8,287,854	8,379,256	8,473,400	8,570,369	6,173,559	6,276,433	6,382,393	6,491,532	13,464,645	9,660,031	6,838,990	4,217,401	4,343,923	4,474,240
EXPENDITURES															
TOTAL OPERATING EXPENDITURES	2,958,000	3,046,740	3,138,142	3,232,286	3,329,255	3,429,133	3,532,007	3,637,967	3,747,106	3,859,519	3,975,305	4,094,564	4,217,401	4,343,923	4,474,240
TOTAL DEBT SERVICE	0	5,241,114	5,241,114	5,241,114	5,241,114	2,744,426	2,744,426	2,744,426	2,744,426	2,744,426	2,744,426	2,744,426	0	0	0
TOTAL CAPITAL EXPENDITURES	23,176,778	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EXPENDITURES	26,134,778	8,287,854	8,379,256	8,473,400	8,570,369	6,173,559	6,276,433	6,382,393	6,491,532	6,603,945	6,719,731	6,838,990	4,217,401	4,343,923	4,474,240
NET PROCEEDS	0	0	0	0	0	0	0	0	0	6,860,700	2,940,300	0	0	0	0

Table D5. City financial pro forma discounted cash flows (IRR)

CITY FINANCIAL PRO FORMA - DISCOUNTED CASH FLOWS

ASSUMPTIONS

1. Financial structure of the Industrial Development Lease with the private tenant and agreements with Foodlink and CSUS provide for break-even on operations

a. City has forecast a return of \$0.8 million in year 10 from private tenant's purchase option and \$2.9 million in year 11 from potential sales of the remaining undeveloped land

2. Assumed the City recovers all invested capital through infrastructure grants and lease/loan

agreements with the exception of \$5.0 million property purchase investment

a. above assumption produces an internal rate of return of 6.76%

CALCULATIONS

SUMMARY	YEAR 1 1995	YEAR 2 1996	YEAR 3 1997	YEAR 4 1998	YEAR 5 1999	YEAR 6 2000	YEAR 7 2001	YEAR 8 2002	YEAR 9 2003	YEAR 10 2004	YEAR 11 2005	YEAR 12 2006	YEAR 13 2007	YEAR 14 2008	YEAR 15 2009
REVENUE/CAPITAL PROCEEDS															
TOTAL OPERATING REVENUE	2,958,000	8,287,854	8,379,256	8,473,400	8,570,369	6,173,559	6,276,433	6,382,393	6,491,532	6,603,945	6,719,731	6,838,990	4,217,401	4,343,923	4,474,240
TOTAL CAPITAL PROCEEDS	23,176,778	0	0	0	0	0	0	0	0	6,960,700	2,940,300	0	0	0	0
TOTAL REVENUE/PROCEEDS	26,134,778	8,287,854	8,379,256	8,473,400	8,570,369	6,173,559	6,276,433	6,382,393	6,491,532	13,464,645	9,660,031	6,838,990	4,217,401	4,343,923	4,474,240
EXPENDITURES															
TOTAL OPERATING EXPENDITURES	2,958,000	3,046,740	3,138,142	3,232,286	3,329,255	3,429,133	3,532,007	3,637,967	3,747,106	3,859,519	3,975,305	4,094,564	4,217,401	4,343,923	4,474,240
TOTAL DEBT SERVICE	0	5,241,114	5,241,114	5,241,114	5,241,114	2,744,426	2,744,426	2,744,426	2,744,426	2,744,426	2,744,426	2,744,426	0	0	0
TOTAL CAPITAL EXPENDITURES	23,176,778	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EXPENDITURES	26,134,778	8,287,854	8,379,256	8,473,400	8,570,369	6,173,559	6,276,433	6,382,393	6,491,532	6,603,945	6,719,731	6,838,990	4,217,401	4,343,923	4,474,240
NET PROCEEDS	0	0	0	0	0	0	0	0	0	6,860,700	2,940,300	0	0	0	0

DISCOUNTED CASH FLOWS	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11
(INVESTMENT)/CASH FLOWS	(5,000,000)	0	0	0	0	0	0	0	0	0	6,960,700	2,940,300
INTERNAL RATE OF RETURN (IRR)	6.76%											
NET PRESENT VALUE (NPV) @ IRR	(0)											
		DISCOUNT RATE										
		5.00%	4.55%	6.76%								
DISCOUNTED CASH FLOW YR. 10		5.00%	4.55%	6.76%								
DISCOUNTED CASH FLOW YR. 11												
PRESENT VALUE OF YR. 10 CASH FLOW		4,211,875	4,396,712	3,567,747								
PRESENT VALUE OF YR. 11 CASH FLOW		1,719,133	1,802,301	1,432,253								
PRESENT VALUE OF CASH FLOWS		5,931,007	6,199,013	5,000,000								
		DISCOUNTED @ 5%										
			4,211,875	1,719,133								

Need and Extent of Infrastructure Improvements

To review the validity of the estimates for infrastructure improvements included in the SADA EDC application, an independent assessment was conducted by USACERL personnel and supplementary information gathered. USACERL's estimates were then compared with the City of Sacramento's.

The assessment was twofold. One part of the assessment developed estimates to bring the installation up to the minimum condition considered acceptable for economic conveyance. USACERL also provided a worst-case scenario to provide a ballpark estimate of how high the cost of infrastructure improvements might climb under the least-favorable conditions. Due to the project's time constraints, this twofold assessment could not provide a level of detail or accuracy that one would expect in a formal property inspection and assessment. However, the cost estimates developed on the following pages represent a solid ballpark estimate that reasonably reflects the magnitude of costs for minimal and worst-case upgrade scenarios.

The following sections report:

1. The procedure used to determine the current condition including the need for improvements.
2. The observed condition and costs for a possible repair scenario to bring up the condition to Excellent or maintain the system at Excellent.
3. The possible improvements and costs required in a worst-case scenario in which total replacement of the system was required.
4. The infrastructure improvement plan proposed by Sacramento. [1]
5. A comparison of Sacramento's plan and USACERL's estimate.
6. Conclusions drawn from the comparison.

Condition Assessment Approach

The condition assessment procedure consisted of: dividing the infrastructure into logical divisions and systems, completing a brief visual inspection, assessing the current condition, and determining level of repairs to improve the condition.

Major Divisions: USACERL broke the infrastructure into five major divisions: transportation, utilities - water, utilities - energy, buildings, and miscellaneous. [13] Each division was then broken into systems.

Inspection: The team conducted a brief visual inspection on each system of the five major divisions and kept a photographic record of discovered distress types. The team did not record specific distress amounts due to time constraints. The condition evaluation also relied on inspection information from depot personnel and previous condition surveys [6, 7, 8, 9, 10, 11].

Condition: Many different condition rating schemes could have been used. A USACERL-developed condition rating system (Table D7) was used to show the correlation between a condition rating, amount of distress, functionality, and type of maintenance and repair.

Table D7. Condition Rating Scale.

Category	Condition Descriptions (per system)		
	Amount of Distress	Functionality	Type of Maintenance & Repair
Excellent	Minimal Deterioration	Not impaired	Preventive or minor maintenance, or minor repair
Very Good	Minor deterioration	Slightly impaired	Preventive or minor maintenance, or minor repair
Good	Moderate deterioration	Somewhat impaired	Moderate maintenance or minor repair
Fair	Significant deterioration	Seriously impaired	Significant maintenance or moderate repair
Poor	Severe deterioration over a small portion	Critically impaired	Major repair
Very Poor	Severe deterioration over a moderate portion	Barely exists	Major repair but less than total restoration
Failed	Severe deterioration over a large portion	Lost	Total restoration

Repair Levels: Time constraints did not permit identifying the optional solution encountered problems. A feasible scenario was devised to use as a benchmark for Sacramento's estimates.

SADA Infrastructure Condition

USACERL relied on first-hand observations, photographs taken during the site visit, previous condition surveys [6, 7, 8, 9, 10, 11], and information gained from Depot personnel to find the infrastructure condition. Each paragraph below lists the infrastructure system condition, a reason condition rating, and an estimated cost to improve the system. Detailed cost estimates for all systems are in Attachment D1.

Transportation

Roads: The 30 miles of asphalt roads at SADA are in Very Good condition. Sacramento needs to resolve the drainage problems in the northwest part of the Depot and do minor maintenance to bring these roads to Excellent condition. Minor maintenance should require repairing and cracks on all

major streets and roads, and applying an asphaltic chip-seal. The estimated cost to do this work is \$1,030,000 to \$1,220,000.

Parking Lots: The condition of the 158,000 sq yds of parking lots at SADA is Good. Most of the parking lots are in Excellent condition, but there is one Very Poor parking lot that brings down the condition. This parking lot has severe cracking and drainage problems. By replacing the bad lot and doing minor maintenance of applying an asphaltic chip-seal to the others, the condition should return to Excellent. The replacement cost for the bad parking lot should range between \$380,000 and \$450,000. The cost of minor maintenance for the rest of the parking lots ranges should range between \$1,000,000 and \$1,180,000.

The total cost for the minimal repairs should range between \$1,380,000 and \$1,630,000.

Railroads: The existing 10 miles of railroad system is in Very Good condition. The one distress that affects the rating the most is pumping of ballast in the northwest part of the depot. The condition can change to Excellent by repairing the pumping ballast and performing minor maintenance (replacing bad ties, tightening loose bolts, and greasing the switches). The estimated cost to improve the condition to Excellent should range from \$110,000 to \$130,000.

Bridges: The one 40-ton bridge on the depot is in Excellent condition. The bridge needs routine maintenance to keep it at that level. The estimated cost for bridge maintenance (inspection and applying crack sealant) may range from \$600 to \$700.

Bike Paths: Currently, there are no separate bike paths on the depot.

Sidewalks: There are 20,000 square yards of sidewalk space on the depot and it is in Excellent condition. It only needs routine maintenance of inspection and replacing cracked sections to maintain them at Excellent. The estimated costs to do this should range around \$400.

Traffic Control: Currently, the only traffic control on the depot is traffic signs and they are in Excellent condition. The signs will only need routine maintenance to keep them at that level. The estimated cost for maintaining traffic signs (replacing faded signs) may range from \$6,000 to \$7,000. However, traffic controls should be installed fairly soon to help control the flow of traffic in and around the depot. The controls will be addressed in more detail in the next section.

Airfields and Heliports: There are no separate airfields and one small heliport on the depot. However, the heliport can only be used when traffic is blocked off. USACERL recommends that the heliport be abandoned in place and no further maintenance be done on it.

Utilities - Water

Domestic Water: The 63,000 linear feet of pipe in the domestic water system are in Good condition. This is due to some minor corrosion, prior amounts of water in valve boxes, minor amounts of

inoperative valves, and minor amounts of leaking packing. The estimated cost to do the repairs and obtain Excellent condition may range from \$90,000 to \$110,000.

Storm Sewer: The storm sewer system at SADA has two distinct parts. The first part is the main lines and laterals that are in Very Good condition, based on a detailed inspection of the system done in a previous condition survey [9]. The results of this survey estimated the repairs to bring it up to Excellent condition should range from \$90,000 to \$110,000.

The second part of the storm sewer system open-ditch drainage. This part is in Poor condition. This is evident by the standing water on the western side of the depot. After studying the Master Planning maps [5] and photos taken during the site visit, USACERL found that the open drainage ditches do not sufficiently slope and are clogged with vegetation. Further review of condition surveys done by outside sources confirmed the observations [9]. By cutting the open drainage ditches to provide adequate slope and removing the vegetation should bring the condition to Excellent. The estimate cost to bring this system to Excellent may range from \$310,000 to \$370,000.

Sanitary Sewer: There are 41,000 linear feet of pipe in the sanitary sewer system at SADA. This system is in Good condition, as shown by the results of a previous condition survey [8]. This is because there are some broken pipes and manholes that need replacement. The estimated cost to bring the condition to Excellent and do these repairs should range from \$190,000 to \$220,000.

Industrial Wastewater: The present industrial wastewater system at Sacramento Army Depot consists of a primary and secondary clarifier, an oil-water separator, and 1,000 linear feet of pipe. The depot has a current permit to discharge the treated water into the county's sanitary sewer system. The system is in Excellent condition. The estimated cost to maintain this system (inspection and replace broken parts as required) at Excellent should be from \$40,000 to \$50,000.

Utilities - Energy

Electrical: The 71,000 linear feet of overhead distribution lines, 17,000 linear feet of underground lines, and 20,154 KVA total transformer capacity are in Excellent condition by visual inspection. There was not sufficient time to check functionality of the system to find any other distress. Therefore, USACERL assumed that the costs that the depot is incurring for this system (ranging from \$120,000 to \$150,000) will maintain it at that condition. However, the system may not be adequate for any future development.

Natural Gas: A previous condition survey [6] determined the 36,000 linear feet of pipe in natural gas system to be in Good condition. The cathodic protection system has failed, the pipes are in Good to Excellent condition, and the protective wrap is in Fair to Poor condition. Cost to improve the condition should range from \$91,000 to \$108,000.

Heating: The depot has a central heating system plant that produces 62 MBtu with 34,000 linear feet of underground lines. There are also 17 small heating systems in the outer parts of the depot that

will produce a total of 35 MBtu. All heating plants use natural gas, so it is a clean operation. The central heating plant is in Excellent condition and will require routine annual maintenance. According to depot personnel, the smaller heating systems are also in Excellent condition. The amount of money the depot is spending ranges from \$1,000,000 to \$1,190,000. USACERL assumed that this amount of money will maintain it at Excellent condition.

Air Conditioning: The depot has a distributed air conditioning system that should produce 110 tons of cooling capacity. Most of this system is in evaporative coolers with a scattering of central air units. USACERL could not evaluate the coolers because the depot has winterized this system. However, information gained from depot personnel will place this system in the Very Good category. USACERL assumed that the current amount of money being spent could bring this system up to Excellent, ranging from \$220,000 to \$260,000.

Buildings

General: USACERL did not inspect all of the 3,118,000 square feet of buildings during the site visit, due to time constraints. The team sampled approximately 500,000 square feet of buildings and found them in Very Good to Good condition. USACERL extrapolated this information to the rest of the buildings to determine that the building condition on the depot is Good. The estimated costs to maintain these buildings at their current condition (inspection, fix roof, plumbing, and heating leaks, replace electrical items, etc.) could be around \$5 million [4].

Historic: Sacramento Army Depot went through the Section 106 process and found out that there are no historic buildings on the depot.

Service Buildings: SADA has maintained the service facilities of the health clinic and fire station in Excellent condition. USACERL assumed that the amount of money being spent by the depot will maintain these buildings at Excellent condition. This should range from \$6,000 to \$7,000.

Miscellaneous

Street Lights and Building Security Lights: The 460 high-pressure and mercury vapor lights in this system are in Very Good condition. Some lights need replacement to make them functional and bring the system up to Excellent. The estimated cost to replace burned out lights and improve the condition could range from \$8,000 to \$9,000.

Telephone: The telephone system is in Excellent condition, based on information from depot personnel. The estimated cost to maintain this system at Excellent by inspection and repairing broken lines should range from \$9,000 to \$11,000.

Landscaping: The landscaping on 111 acres of improved grounds and 374 acres of unimproved ground is in Excellent condition. Thus, the grounds will need only conventional maintenance or common-area maintenance to keep it at that level. The estimated cost for landscape maintenance should range from \$280,000 to \$340,000.

Environmental Set-Aside: In the northwest part of the depot, poorly drained land has created habitat for the endangered fairy shrimp and the burrowing owl. USACERL took great care in estimating the infrastructure improvements not to specify any work that would disturb any endangered species habitat. Currently, the depot is spending from \$46,000 to \$54,000 to maintain these habitats.

Capital Improvements

Time did not permit thorough evaluation of each system for code compliance or the capacity to support economic development. The focus of these improvement estimates was on obvious major code violations and obvious major facility upgrades needed to accommodate industrial redevelopment.

Transportation

Roads: SADA roads lack curb and gutter to achieve proper drainage, and to come into compliance with current State and local codes. The roads should have an 3 in. overlay applied to help with any future anticipated semi-truck traffic. It is unclear whether the city will apply the current code to the existing SADA road network, or exempt the existing roads and only apply the current standards to new roadways. If the city does not exempt the existing road network, the estimated cost to meet the current codes will range between \$3,900,000 and \$4,610,000.

Parking Lots: The existing parking lots at SADA also lack curb and gutter to achieve proper drainage, and to come into compliance with current State and local codes. The parking lots should also have a three inch overlay to help with any anticipated semi-truck traffic. The one bad parking lot noted previously should also be repaired as part of the work under this section. If the city applies existing code to existing parking lots, the cost to do the required improvement should range between \$2,460,000 and \$2,900,000.

Railroads: The existing track does not meet current American Railroad Engineers Association (AREA) code for lightweight shortline railroad usage and needs replacement. These requirements outline the minimum weight of track needs to be at least 115 pounds per linear yard. The current track is only 75 pounds per linear yard. Therefore, the entire system should be replaced. It is unclear if Sacramento wants to include development of the rail in their reuse plan. If the city chooses to include upgrading the rail, the estimated cost should range from \$6,550,000 to \$7,740,000.

Bridges: The existing bridge meets all current code requirements and can handle most anticipated future uses.

Bike Paths: Installing bike paths in an industrial area is not a traditional method of economic development. The economic development plan of Sacramento addressed installing over 60,000 feet of bike path. However, it did not include an estimate to do this work. If Sacramento wants to install the paths, the estimate should range from \$890,000 to \$1,050,000.

Sidewalks: Installing sidewalks would require removing roadways and parking lots to be able to install sidewalks. The economic development plan of Sacramento addressed installing over 60,000 feet of new sidewalk, but did not include a cost estimate to do this work. Installing the sidewalks should cost from \$890,000 to \$1,050,000.

Traffic Control: The city of Sacramento did a traffic flow study in and around the depot. This study recommends installing two traffic lights immediately and an additional two lights later as the area starts to develop. The estimated cost to install four traffic lights should range from \$270,000 to \$310,000. No additional road improvements should be necessary because the number of personnel using the roads should remain about the same under the EDC.

Airfields and Heliports: There are no anticipated future requirements to have an airfield or a heliport at the depot. USACERL recommends that the heliport be abandoned in place and be incorporated back into the street.

Utilities - Water

Domestic Water: The information that USACERL currently has is not adequate to determine whether the system will meet future demands. USACERL recommends that a hydraulic analysis be performed to determine if needs can be met. Since water demands have been met in the past, USACERL assumed that the capacity of the system does not need to be increased to encourage future economic development solely based on the number of personnel.

Currently, the water system is adequate for fire protection. However, as tenants move on and start to reuse the depot, building use will change. This will increase the demand for water to meet the requirement for fire protection. To meet this requirement, improvements will be necessary to meet city of Sacramento fire standards. This should include some repairs mentioned above, upgrading selected pipes in size to increase fire flow capacity, installing additional lines, replacing off-code fire hydrants, and replacing missing gate valves. The estimated cost to do the upgrades and replacement of the system should range from \$3,390,000 to \$4,000,000.

Storm Sewer: When the storm system was designed, it was designed to handle all of the water from the worst storm over a 20 year period. Since no new land has been developed since the depot was first constructed and the "20 year" storm has not changed, it can be concluded that the system will continue to be adequate for the needs of the depot.

The system needs no replacements or upgrades for the current reuse plan. However, if the city develops additional property on the depot, they will need to expand the system to meet those demands. The repairs noted under "SADA Infrastructure Condition" should be accomplished, and should range from \$290,000 to \$310,000.

Sanitary Sewer: The system does not need be upgraded to encourage economic growth. This is because the conventional method of designing sanitary sewer systems includes a safety factor of

two. This means that the current system is double that required for employees expected under the EDC.

However, if the need does end up exceeding current system capacity, the estimated cost to upgrade sewer pipe size, and install additional lines, manholes, and lift stations should range from \$1,960,000 to \$2,320,000.

Industrial Wastewater: The current system meets all applicable code requirements. It is unclear in the economic conveyance plan whether the industrial wastewater treatment will be adequate for the new tenants. If it is, then no additional upgrades will be necessary. If it is not, and the current clarifier system needs to be upgraded (additional lines and tanks), the estimated cost to do this should range from \$960,000 to \$1,100,000. (The type of wastewater treatment system really depends on what the tenants will produce. Sometimes a clarifier system is adequate. Other times a chemical treatment system industrial waste is adequate. One relative order of magnitude, a clarifier system is more expensive to construct than a chemical system. Therefore, cost of a clarifier a system represents the worst-case scenario.

Utilities - Energy

Electrical: The current electric service into the depot is 10 MVA, which was adequate for the depot. This may not be adequate for economic development and future reuse of the depot. The city may need to bring in additional electrical power. If this work is required, it will include upgrade distribution wiring, installing additional lines, and replacing old or adding new transformers. The cost estimate to do the upgrades should range from \$3,120,000 to \$3,690,000.

Natural Gas: Upgrade of the system is not necessary at this time because when the depot installed the system, it put lines to most of the major buildings, thus aiding future expansion. However, the system is out of compliance with California Public Utilities Commission Standards. If the growth rate exceeds the anticipated demand or the local utility company will require the installation of high pressure lines, then upgrading the system (additional lines, replacing low-pressure with high pressure pipe, upgrading meters and valves, etc.) should range from \$1,790,000 to \$2,120,000.

Heating: For current depot use (mostly storage and some administrative) this system is adequate. However, the current anticipated reuse of the depot, this will not be adequate. The reuse plan converts much storage space into production space. Changing the needs of the warehouses from an average low temperature of 45 °F to 70 °F in the winter will require additional heat. If Sacramento adds the additional capacity, the estimated cost to install this capacity (boilers and lines) should range from \$2,550,000 to \$3,020,000. It would be in the best interest of the City to have the new owners install their own heating systems.

Air Conditioning: For the current use of the depot, mostly storage and administration, this system is adequate. However, the current anticipated reuse of the depot, this will not be adequate. The new use will be mostly production and administration. Lowering the temperature of the converted warehouse space to that necessary for production in the summer will require additional air

conditioning. If Sacramento adds the additional capacity the estimated cost to should range from \$6,590,000 to \$7,790,000. It would be in the best interest of the city to have the new owners install their own cooling systems.

Buildings

Codes: The inspection found a variety of code violations. There are several buildings of frame construction with asbestos siding that the City cannot use. Also, the Army built many buildings during the 1940s and 1950s that do not meet current seismic code. Many frame buildings do not have adequate electric capacity or fire protection. The team could not fully investigate all code violations due to the short time allotted to site inspection. Additional inspections should be done to verify the code violations.

Facility Improvements: An estimated cost to upgrade the condition or code requirements for each building is not practical because the ultimate use of each building will dictate what improvements are necessary. The tenants of the building should determine what improvements they will need to make— not the city of Sacramento.

USACERL did a check on some proposed facility improvements by Packard Bell. The two estimates vary approximately 4 percent (Table D8) and therefore, can be concluded that the estimated costs are reasonable. See cost breakdowns in Attachment D1.

Table D8. Comparison of Construction Estimates.

Building No.	Packard Bell	USACERL
Building 255	\$6,593,500	\$6,922,366
Building 555	\$503,600	\$396,840
Building 150	\$4,161,085	\$3,494,168
Building 251, 253, 257	\$4,815,000	\$5,913,808
Site Improvements	\$1,145,000	\$1,089,810
Grand Total	\$17,218,185	\$17,816,992

Demolition: To encourage economic development of the depot, the city recommends removing several frame and permanent buildings [1]. This plan shows a total of 861,500 square feet of permanent construction and 919,000 square feet of frame construction (with 88,000 having asbestos siding) requiring demolishing. The total estimated cost to demolish the buildings should range from \$8,850,000 to \$11,170,000, as shown in Attachment D1.

New Construction: The city does not plan to construct any new maintenance or service buildings in this area to support economic development.

Miscellaneous

Street Lights and Building Security Lights: Because of the Army's high security requirements, there are more than enough street lights and building security lights on the depot. If for some reason, the

economic development will incur upgrades, an estimated cost to increase the capacity 25 percent should range from \$650,000 to \$770,000.

Telephone: USACERL anticipates that the current system is adequate for the proposed redevelopment. If, however, the redevelopment of the depot exceeds predicated values, the city should increase the number of telephone lines. The estimate to increase the capacity 50 percent should range from \$1,200,000 to \$1,420,000.

Landscaping: The redevelopment plan did not exactly define common area maintenance for the new tenants. The plan did briefly mention planting some 1,500 trees and shrubs to improve the landscaping. It did not mention planting additional grass or any other types of improvements. USACERL looked at several options of planting trees, shrubs, and lawns to improve the landscaping. The estimated cost of this work should range from \$710,000 to \$1,300,000.

Environmental Set-Aside: In the northwest part of the depot, poor drainage has created habitat for the endangered fairy shrimp and burrowing owl. One approach to protecting the habitat from vandalism and educating tenants about the species that live there would be to construct a fence around the area for security and have walking paths with nature signs along the trail. The estimated cost of such work is \$240,000 to \$290,000.

City of Sacramento Plans

Sacramento's Reuse Plan and revised EDC application address very limited parts of the infrastructure. The estimates do not address what kinds of improvements are required or how the estimate was obtained. The city's Reuse Plan addresses improving all of the depot land by breaking it into eleven different parcels to allow several developers to come. The revised EDC application states that there will only be one developer and is not clear in what improvements should or should not be done. The following are highlights from both plans and states or does not state what is necessary for infrastructure improvements:

Transportation

Roads: This plan only addresses road improvements on the depot to give right-of-way access to the tenants of Foodlink and the CSU-S buildings. The Reuse Commission estimated \$1.4 million for these improvements.

Parking Lots: The Reuse Plan did not address this topic.

Railroads: The Reuse Plan states the repairs to bring up the railroad to AREA requirements will cost \$1,800,000. However, the plan does not state whether this work should be done.

Bridges: The Reuse Plan did not address this topic.

Bike Paths: The Reuse Plan says paths should be installed, but does not give a cost estimate.

Sidewalks: The Reuse Plan says sidewalks should be installed, but does not give a cost estimate.

Traffic Control: The City's plan states: "Traffic signals cost approximately \$125,000 to \$175,000, and at least two will be necessary."

Utilities - Water

Domestic Water: The City's plan states: "Cost of extending water systems to the eleven parcels specified in the Development Plan is estimated to be \$1,126,875.00."

Sanitary Sewer: The City's plan states: "Cost of extending sewer systems to the eleven parcels specified in the Development Plan is estimated to be \$1,403,000.00."

Storm Sewer: The City's plan states: "Cost of extending storm drainage systems to the eleven parcels specified in the Development Plan is estimated to be \$1,511,362.50."

Industrial Wastewater: The Reuse Plan does not address this topic.

Utilities - Energy

Electrical: The City's plan states: "Cost of extending electrical systems to the eleven parcels specified in the Development Plan is estimated to be \$1,875,000.00."

Natural Gas: The City's plan states: "Cost of extending natural gas systems to the 11 parcels specified in the Development Plan is estimated to be \$1,187,500.00."

Heating: The Reuse Plan does not address this topic.

Air Conditioning: The Reuse Plan did not address this topic.

Buildings

Demolition: The Reuse Plan discusses in depth the need to demolish several specific buildings to encourage economic growth. The plan also gives the impression that it would be in the City's best interest to demolish all of the buildings. The plan does not provide an estimate for demolition, but gives an estimate for internal parcelization. USACERL assumed that this is what the City means by demolition. The City's estimate is \$10,501,023.

New Construction: The City's plan does not address constructing any new maintenance or service buildings to support this area.

Miscellaneous

Street Lights: The City's plan states: "A street lighting system would cost about \$450,000 to \$550,000."

Telephone: The City's plan states: "The estimated cost for constructing new underground communications systems is estimated at \$600,000 to \$900,000. "

Landscaping: The City's plan discusses in depth the type of trees and shrubs that should be planted to improve the area's appearance. However, the plan does not give a cost estimate to do this work.

Environmental Set-Aside: The City's plan addresses the fact that this area should be improved to protect the fairy shrimp and burrowing owl. However, the plan does not give a cost estimate to do this work.

The Reuse Commission, with the Master Planning Division of Sacramento, requests additional road improvements around the area of Sacramento Army Depot. It is not clear, in this estimate of \$81 million, what parts are for economic development of the depot. The Master Planning section could be looking at the total area in and around the depot and the needed traffic improvements for that area to encourage economic development, which may or may not relate directly to the closure of the depot.

The existing road network was sufficient when SADA was fully operational. Therefore, USACERL does not think that the proposed \$81.0 million boundary road improvement is necessary as part of the redevelopment of SADA. At the height of the depot operations there were approximately 3,000 people working. The new tenant should employ approximately the same number of people, so the traffic layout will not significantly change. USACERL also considers the \$1.4 million for access for current tenants high, but a necessary improvement.

Comparison

Table D9 summarizes cost-estimate comparisons between Sacramento's EDC application and the assessment by USACERL. Sacramento estimates the total cost to improve the infrastructure at \$21 million. USACERL estimates the absolute bare minimum cost to improve the infrastructure should be between \$17,240,000 and \$21,092,000. This shows that Sacramento's estimates appear to be reasonable.

The worst-case scenario would require much more work than Sacramento estimates. USACERL estimates that this could range from \$49,071,000 to \$59,121,000. It is unclear in the EDC application how Sacramento would deal with any improvement contingencies that approached USACERL's worst-case scenario.

Table D9. Comparison of Sacramento and USACERL Infrastructure Improvement.

Infrastructure Division	Infrastructure System	Sacramento estimates	Minimal Repair USACERL Estimate		Worst-Case USACERL Estimate	
			Low	High	Low	High
Transportation						
	Roads	\$1,400,000	\$1,030,000	\$1,220,000	\$3,900,000	\$4,610,000
	Parking lots	\$0	\$1,380,000	\$1,630,000	\$2,460,000	\$2,900,000
	Railroads	\$0	\$110,000	\$130,000	\$6,550,000	\$7,740,000
	Bridges	\$0	\$600	\$700	\$600	\$700
	Bike Paths	\$0	\$0	\$0	\$890,000	\$1,050,000
	Sidewalks	\$0	\$400	\$400	\$890,000	\$1,050,000
	Traffic Control	\$175,000	\$270,000	\$310,000	\$270,000	\$310,000
	Airfields/ Heliports	\$0	\$600	\$700	\$0	\$0
Utilities - Water						
	Domestic Water	\$1,126,875	\$90,000	\$110,000	\$3,890,000	\$4,590,000
	Storm Sewer	\$1,511,362	\$290,000	\$340,000	\$290,000	\$340,000
	Sanitary Sewer	\$1,403,000	\$190,000	\$220,000	\$1,960,000	\$2,320,000
	Industrial Wastewater	\$0	\$40,000	\$50,000	\$960,000	\$1,100,000
Utilities - Energy						
	Electrical	\$1,875,000	\$3,120,000	\$3,690,000	\$3,120,000	\$3,690,000
	Natural Gas	\$1,187,500	\$91,000	\$108,000	\$1,790,000	\$2,120,000
	Heating	\$0	\$1,000,000	\$1,190,000	\$2,700,000	\$3,190,000
	A/C	\$0	\$220,000	\$260,000	\$6,590,000	\$7,790,000
Buildings						
	Demolition	\$10,501,023	\$8,850,000	\$11,170,000	\$8,850,000	\$11,170,000
	Historic	\$0	\$0	\$0	\$0	\$0
	Service Facilities	\$0	\$6,000	\$7,000	\$1,200,000	\$1,420,000
Miscellaneous						
	Street Lights	\$550,000	\$8,000	\$9,000	\$650,000	\$770,000
	Telephone	\$900,000	\$8,000	\$10,000	\$1,200,000	\$1,420,000
	Landscaping	\$0	\$280,000	\$340,000	\$710,000	\$1,300,000
	Environmental Set-Aside	\$0	\$46,000	\$54,000	\$200,000	\$240,000
TOTAL	TOTAL	\$20,629,760	\$17,030,600	\$20,849,800	\$49,070,600	\$59,120,700

Items Not Addressed

As the city develops property there are other services that would need to be addressed, including refuse handling and collection, fire prevention and protection, police, pest control, building inspection, and city engineer planning. With the opening of the land and buildings on the depot, the Reuse Plan does not address how current municipal services for the area would be affected.

Summary

The estimate for infrastructure improvements by Sacramento is approximately \$21 million. USACERL cost estimates range from approximately \$17.2 million to \$21.1 million for the absolute necessary repairs. While the City's numbers are very close to USACERL's estimates, the City did not address many infrastructure items that may affect its plan. USACERL recommends that Sacramento show how these items were considered in the plan.

USACERL estimates that the worst-case scenario for infrastructure improvements should range from \$49.1 million to \$59.1 million. This is more than twice the estimated by Sacramento. The Sacramento plan does not address any contingencies that might cause the costs to far exceed the initial estimate. USACERL recommends that EDC application show how the City would handle such contingencies.

Conclusions and Recommendations

Conclusions

1. The costs for improvements to the infrastructure are approximately \$21 million as estimated by Sacramento. USACERL estimates the absolute necessary infrastructure improvement costs should be between approximately \$17.2 million and \$21.1 million. Therefore, the need and extent of the proposed improvements are valid as proposed by Sacramento.
2. The estimated cost for improvements to the infrastructure by Sacramento did not address some infrastructure systems. The cost to improve these systems could affect the improvement estimate greatly.
3. The "worst case" scenario (in most cases, total replacement) for proposed infrastructure improvements could be as high as \$59.1 million. Sacramento did not address any contingencies for improvements that may exceed their initial estimate.

Recommendations

1. A set format for an application of economic development conveyance should be developed to ensure that the city addresses and considered the proper infrastructure improvements to ensure solid economic development.
2. Sacramento should show how they obtained their cost estimates, why some infrastructure systems were not addressed, and what they plan to do if improvements exceed their estimate.
3. There are many services that the city provides to a developed area that the plan did not address. Among these are refuse collection, security, and fire protection. These will have an effect on the redevelopment if the city cannot provide them. It is recommended that the city show how they plan to provide for these series.
4. The estimated costs to repair and upgrade the depot by USACERL should be studied further and validated if necessary.

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Attachment D1: Repair and Upgrade Cost Estimates

Attachment D1 lays out the assumptions underlying the costs reported for infrastructure improvements, Appendix D. Costs were put together from Means facility cost data [3,12] and the 1992 edition of the Red Book [4]. The costs were also supplemented by information from personnel at Tooele Army Depot, Tooele, Utah; Fort Sheridan, Chicago, Illinois; Fort Ord, Monterey, California; and Fort Wingate, Gallup, New Mexico.

USACERL got all measurements from the 1992 edition of the Red Book [4] and the Real Property Master Planning Maps for SADA [5].

When developing detailed cost estimates on a project, it is common practice to add a 10 percent contingency in case the estimator forgot anything. The cost estimates here include that standard 10 percent contingency. However, because there was not enough time to do detailed cost estimates according to best practices, many items undoubtedly were overlooked. To compensate for this, an additional contingency cost of 30 percent was introduced.

In many cases, the amount of money the depot is spending on an infrastructure system is sufficient to maintain it at that condition. The 1992 dollar value was [4] brought forward using a 5 percent inflation factor for both 1993 and 1994.

Each worst-case cost estimate was developed assuming no coordination with related systems. For example, cutting and removing asphalt to install utility lines may appear several times. In reality, many upgrades could be coordinated to lower costs, e.g., renovating several utility systems simultaneously to take advantage of one trenching operation. Such cost efficiencies would arise only through careful planning, but the authors did not make assumptions about how the repairs and upgrades were programmed. Consequently, the USACERL worst-case scenario really does address the worst possible case, including lack of effective coordination of repairs between infrastructure systems. This extra measure of conservatism by the researchers inherently pulses the estimates to the high side—as they should be in a worst-case scenario.

Transportation

Roads - Condition

The 30 miles of asphalt roads at SADA are in Very Good condition. Sacramento needs to resolve the drainage problems in the northwest part of the Depot and do minor maintenance to bring these roads to Excellent condition. Minor maintenance should require repairing existing potholes and cracking on all major streets and roads, and applying an asphaltic chip-seal.

This cost estimate is to resurface 156,000 square yards of street bituminous surface with a chip seal. It also includes doing minor repairs, such as applying a crack sealant to the 21,000 square yards of concrete roadways as the depot has been doing over the past few years. Also included in the estimate is repairing 10% of the existing street surface, sweeping the streets of any debris and painting 4" stripes, two at the center of the street and one at each shoulder after the chip seal work is completed. An additional 5% of the existing road surface was included to repair the heavily cracked section of roadway in the northwest part of the depot.

Table D10. Possible repairs for concrete roads to improve condition.

POSSIBLE REPAIRS FOR CONCRETE ROADS TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
EXISTING 1992 COST				\$31,871
SUBTOTAL				\$31,871
Inflation for 1993			5%	\$33,465
Inflation for 1994			5%	\$35,138
Contingency (of sub-total)			10%	\$3,514
Contingency (of sub-total)			30%	\$10,541
TOTAL with 10% contingency				\$38,652
TOTAL with 30% contingency				\$45,679
ROUNDED TO				\$40,000
ROUNDED TO				\$50,000

Table D11. Possible Repairs for Asphalt Streets to Improve Condition.

POSSIBLE REPAIRS FOR ASPHALT STREETS TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost

RESURFACE EXISTING STREETS / ROADS				
Sweep and remove debris (1,404,000 S.F.)	1,404	Thousand S.F.	\$3.29	\$4,619
Repair potholes & damages (15% of 156,000 S. Y.)	23,400	Square Yards	\$13.00	\$304,200
Chip seal	156,000	Square Yards	\$2.60	\$405,600
Pavement marking (4" stripes, yellow center, white shoulders)	200,571	Linear Feet	\$0.50	\$100,286
SUBTOTAL				\$814,705
City Cost Index Number			1.106	
SUBTOTAL				\$901,063
Contingency (of sub-total)			10%	\$90,106
Contingency (of sub-total)			30%	\$270,319
TOTAL with 10% contingency				\$991,170
TOTAL with 30% contingency				\$1,171,382
ROUNDED TO				\$990,000
ROUNDED TO				\$1,170,000

Roads - Improvements

The existing roads at SADA lack curbs and gutters to achieve proper drainage and to comply with current State and local codes. The roads should have an 3 in. overlay to help with any future anticipated semi-truck traffic.

This cost estimate is to resurface 156,000 square yards of street surface with an 3 in. overlay, install curb and gutter on both sides of the street, repairing 10% of the existing street surface, sweeping the streets of any debris, and painting 4 in. stripes.

Table D12. Possible Road Improvements.

POSSIBLE ROAD IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
INSTALL CURBS AND GUTTERS				
Excavation for curbs & gutters (1'-6" x 2'-6" x 66,900 L.F.x 2)	18,600	Cubic Yards	\$4.50	\$83,700
New concrete curbs and gutters (66,900 lf x 2)	133,800	Linear Feet	\$13.00	\$1,739,400
Install new catch basins	200	each	\$555.00	\$111,000
RESURFACE EXISTING STREETS / ROADS				
Sweep and remove debris (1,404,000 S.F.)	1,404	Thousand S.F.	\$3.29	\$4,619
Repair potholes & damages (15% of 156,000 S. Y.)	23,400	Square Yards	\$13.00	\$304,200
Three inch overlay	156,000	Square Yards	\$5.55	\$865,800
Pavement marking (2 - 4" yellow center stripes)	200,571	Linear Feet	\$0.50	\$100,286

Action	Quantity	Unit of Measure	Cost/unit	Total Cost
SUBTOTAL				\$3,209,005
City Cost Index Number			1.106	
SUBTOTAL				\$3,549,159
Contingency (of sub-total)			10%	\$354,916
Contingency (of sub-total)			30%	\$1,064,748
TOTAL with 10% contingency				\$3,904,075
TOTAL with 30% contingency				\$4,613,907
ROUNDED TO				\$3,900,000
ROUNDED TO				\$4,610,000

Parking Lots - Condition

The condition of the 158,000 square yards of parking lots at SADA is Good. Most of the parking lots are in Excellent condition, but there is one Very Poor parking lot that brings down the condition. This parking lot has severe cracking and drainage problems. By replacing the bad lot and doing minor maintenance of applying an asphaltic chip-seal to the others, the condition should return to Excellent

This estimate includes removing and reinstalling the "bad" parking lot with proper drainage. It also includes resurfacing of the existing parking lots with a chip seal and repairing 10 percent of the total parking area before chip sealing.

Table D13. Parking Lot Replacement.

PARKING LOT REPLACEMENT				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
REPLACEMENT				
Remove Asphalt 4-6" Thick	13,000	Square Yard	\$6.80	\$88,400
Excavate	4,200	Cubic Yard	\$1.66	\$6,972
Front End Loader	4,200	Cubic Yard	\$1.52	\$6,384
Compact 6" Lifts, 2 Passes	4,200	Cubic Yard	\$0.32	\$1,344
Borrow 2'	4,200	Cubic Yard	\$8.40	\$35,280
Compact 6" Lifts, 2 Passes	4,200	Cubic Yard	\$0.32	\$1,344
Grade	13,000	Square Yard	\$0.58	\$7,540
Install Catch Basin	1	Each	\$555.00	\$555
Install Storm Drainage	1	Each	\$335.00	\$335
Excavation for curbs & gutters (1'-6" x 2'-6" x 1500 L.F.)	220	Cubic Yards	\$4.50	\$990
Install new concrete curbs and gutters	1,500	Linear Feet	\$13.00	\$19,500
Asphalt Binder	13,000	Square Yard	\$5.35	\$69,550
Asphalt Wearing	13,000	Square Yard	\$5.85	\$76,050
Compact 6" Lifts, 2 Passes	4,200	Cubic Yard	\$0.32	\$1,344

Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>SUBTOTAL</i>				\$315,588
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$349,040
Contingency (of sub-total)			10%	\$34,904
Contingency (of sub-total)			30%	\$104,712
TOTAL with 10% Contingency				\$383,944
TOTAL with 30% Contingency				\$453,752
ROUNDED TO				\$380,000
ROUNDED TO				\$450,000

Table D14. Parking Lot Possible Repairs to Improve Condition.

PARKING LOT POSSIBLE REPAIRS TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>RESURFACE EXISTING PARKING LOTS</i>				
Sweep and remove debris (1,422,000 S.F.)	1,422	Thousand S.F.	\$3.29	\$4,678
Repair potholes & damages (15% of 158,000 S. Y.)	23,700	Square Yards	\$13.00	\$308,100
Chip seal	158,000	Square Yards	\$2.60	\$410,800
Pavement marking (4" stripes, yellow center, white shoulders)	200,571	Linear Feet	\$0.50	\$100,286
<i>SUBTOTAL</i>				\$823,864
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$911,193
Contingency (of sub-total)			10%	\$91,119
Contingency (of sub-total)			30%	\$273,358
TOTAL with 10% contingency				\$1,002,313
TOTAL with 30% contingency				\$1,184,551
ROUNDED TO				\$1,000,000
ROUNDED TO				\$1,180,000

Parking Lots - Improvements

The existing parking lots at SADA lack curbs and gutters to achieve proper drainage, and to comply with current State and local codes. The parking lots should also have a three inch overlay to help with any anticipated semi-truck traffic. The one "bad" parking lot mentioned in the EXISTING CONDITION SECTION should also be repaired as part of the work under this section.

This estimate includes repairing 10 percent of the bad sections of the parking lots, applying a three inch overlay, and excavating for and installing curb and gutter and catch basins to help achieve proper drainage.

Table D15. Possible Parking Lot Improvements.

POSSIBLE PARKING LOT IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>INSTALL CURBS AND GUTTERS</i>				
Excavation for curbs & gutters (1'-6" x 2'-6" x 15,000 L.F.)	2500	Cubic Yards	\$4.50	\$11,250
Install new concrete curbs and gutters	15,000	Linear Feet	\$13.00	\$195,000
Install new catch basins	200	each	\$555.00	\$111,000
<i>RESURFACE EXISTING PARKING LOTS</i>				
Sweep and remove debris (1,422,000 S.F.)	1,422	Thousand S.F.	\$3.29	\$4,678
Repair potholes & damages (15% of 158,000 S. Y.)	23,700	Square Yards	\$13.00	\$308,100
Three inch overlay	158,000	Square Yards	\$5.55	\$876,900
Pavement marking (4" white stripes)	400,000	Linear Feet	\$0.50	\$200,000
<i>SUBTOTAL</i>				\$1,706,928
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$1,887,863
Contingency (of sub-total)			10%	\$188,786
Contingency (of sub-total)			30%	\$566,359
TOTAL with 10% contingency				\$2,076,649
TOTAL with 30% contingency				\$2,454,222
ROUNDED TO				\$2,080,000
ROUNDED TO				\$2,450,000

Railroads - Condition

The existing 10 miles of railroad system are in Very Good condition. The one distress that affects the rating the most is pumping of ballast in the northwest part of the depot. The condition can change to Excellent by repairing the pumping ballast and performing minor maintenance (replacing bad ties, tightening loose bolts, and greasing the switches).

This estimate is to replace 100 linear feet of pumped ballast in the northwest area of the depot and perform the repairs outlined in the Foster Wheeler Condition Survey report [7].

Table D16. Possible Railroad Repairs to Improve Condition.

POSSIBLE RAILROAD REPAIRS TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>REPLACE "PUMPED" TRACK</i>				
Remove old & Install new track	100	Linear Foot	\$37.50	\$3,750
New Track	100	Linear Foot	\$88.00	\$8,800
Excavate (100 lf x 10' w x 5.5' d)	200	Cubic Yard	\$3.82	\$764
Compact 6" Lifts, 2 Passes	200	Cubic Yard	\$0.35	\$70
Borrow (100 lf x 10' w x 5.5' d)	200	Cubic Yard	\$2.50	\$500
Grade (100 lf x 10' w)	100	Square Yard	\$0.58	\$58
<i>RR EXTRAS PER SURVEY</i>				
	1	job	\$76,000	\$76,000
<i>SUBTOTAL</i>				\$89,942
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$99,476
Contingency (of sub-total)			10%	\$9,948
Contingency (of sub-total)			30%	\$29,843
TOTAL with 10% Contingency				\$109,423
TOTAL with 30% Contingency				\$129,319
ROUNDED TO				\$110,000
ROUNDED TO				\$130,000

Railroads - Improvements

The existing track does not meet current code for lightweight shortline railroad usage (according to AREA requirements) and needs replacement. These requirements outline the minimum weight of track needs to be at least 115 pounds per linear yard. The current track is only 75 pounds per linear yard.

This estimate is to replace the 10 miles of track, 39 turnouts, and 20 grade crossings with 100-pounds-per-linear-yard rail. The reason for this weight is because there was not sufficient time to thoroughly investigate the prices of the heavier track and the Means Cost Estimating Book [3, 12] had the price for 100 pound per linear foot. It should be understood that this estimate will be low, and further investigating should be done to obtain a more accurate number.

Table D17. Possible Railroad Improvements.

POSSIBLE RAILROAD IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>REPLACE TRACK</i>				
Remove old & Install new track	53,000	Linear Foot	\$37.50	\$1,987,500
New Track	53,000	Linear Foot	\$50.00	\$2,650,000
<i>RR EXTRAS</i>				
Turnouts	35	each	\$15,500	\$542,500
Crossings	20	each	\$10,000	\$200,000
<i>SUBTOTAL</i>				\$5,380,000
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$5,950,280
Contingency (of sub-total)			10%	\$595,028
Contingency (of sub-total)			30%	\$1,785,084
TOTAL with 10% Contingency				\$6,545,308
TOTAL with 30% Contingency				\$7,735,364
ROUNDED TO				\$6,550,000
ROUNDED TO				\$7,740,000

Bridge - Condition and Improvements

The 40-ton bridge on the depot is in Excellent condition. Based on the 1992 Red Book, [4] the depot spent \$500 on bridge maintenance. It is not known what the average cost of maintenance is. USACERL assumed that this is the annual maintenance cost because no other data are available.

The current bridge will handle any reasonably foreseeable loadings and therefore will not need to be improved.

Table D18. Possible Repairs for Bridges to Improve Condition.

POSSIBLE REPAIRS FOR BRIDGES TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>EXISTING 1992 COST</i>				\$500
<i>SUBTOTAL</i>				\$500
Inflation for 1993			5%	\$525
Inflation for 1994			5%	\$551
Contingency (of sub-total)			10%	\$55
Contingency (of sub-total)			30%	\$165
TOTAL with 10% contingency				\$580
TOTAL with 30% contingency				\$690
ROUNDED TO				\$600
ROUNDED TO				\$700

Bike Paths - Improvements

Installing bike paths in an industrial area is not a traditional method of economic development. The economic development plan of Sacramento addressed installing over 50,000 feet of bike path. SADA does not currently have a bike path system. For the safety of the community, this estimate installs 61,000 linear feet of bike path by excavating, forming, pouring, and finishing the concrete bike paths.

Table D19. Possible Bike Path Improvements.

POSSIBLE BIKE PATH IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>INSTALLATION OF BIKE PATHS</i>				
Pre-made Assembly of:				
Excavate				
Install Gravel Fill 4" Deep				
Compact Fill				
Hand Grade				
Install forms				
Place Concrete 4" thick and 4' wide				
Broom Finish				
Clean up				
TOTAL FOR THIS ASSEMBLY	61000	Linear Foot	\$12.00	\$732,000
<i>SUBTOTAL</i>				\$732,000
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$809,592
Contingency (of sub-total)			10%	\$80,959
Contingency (of sub-total)			30%	\$242,878
TOTAL with 10% Contingency				\$890,551
TOTAL with 30% Contingency				\$1,052,470
ROUNDED TO				\$890,000
ROUNDED TO				\$1,050,000

Sidewalks - Condition

There are 20,000 square yards of sidewalk space on the depot and it is in Excellent condition. It only needs routine maintenance of inspection of replacing cracked sections to maintain them at Excellent. To determine the cost of improving the condition of the sidewalks at SADA, USACERL used the existing maintenance costs from the 1992 Red Book [4]. It appears that the amount of money that is being spent on the sidewalks is sufficient to maintain them in the Excellent condition.

Table D20. Possible Repairs for Sidewalks to Improve Condition.

POSSIBLE REPAIRS FOR SIDEWALKS TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
EXISTING 1992 COST				\$300
SUBTOTAL				\$300
Inflation for 1993			5%	\$315
Inflation for 1994			5%	\$331
Contingency (of sub-total)			10%	\$33
Contingency (of sub-total)			30%	\$99
TOTAL with 10% contingency				\$364
TOTAL with 30% contingency				\$430
ROUNDED TO				\$400
ROUNDED TO				\$400

Sidewalks - Improvements

Additional sidewalks could encourage economic development. However, developers install sidewalks at the time of development and not afterwards as would be here. By installing sidewalks at this time, there will additional cost to remove parts of roadways and parking lots. The economic development plan of Sacramento addressed installing over 50,000 additional feet of sidewalk.

This estimates installs 61,000 linear feet of sidewalk, with the assumption that sidewalks can be installed without removing any roadways or parking lots.

Table D21. Sidewalk Installation.

SIDEWALK INSTALLATION				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>INSTALLATION OF BIKE PATHS</i>				
Pre-made Assembly of:				
Excavate				
Install Gravel Fill 4" Deep				
Compact Fill				
Hand Grade				
Install forms				
Place Concrete 4" thick and 4' wide				
Broom Finish				
Clean up				
TOTAL FOR THIS ASSEMBLY	60700	Linear Foot	\$12.00	\$728,400
SUBTOTAL				\$728,400
City Cost Index Number			1.106	
SUBTOTAL				\$805,610
Contingency (of sub-total)			10%	\$80,561
Contingency (of sub-total)			30%	\$241,683
TOTAL with 10% Contingency				\$886,171
TOTAL with 30% Contingency				\$1,047,294
ROUNDED TO				\$890,000
ROUNDED TO				\$1,050,000

Traffic Control - Condition

Talking with depot personnel, the only maintenance done on signs is to replace five to six signs per year. This is cost the depot approximately \$1,000 a sign, or \$5,000 to \$6,000. Since no other data are available to validate this number, USACERL assumed this to be correct.

Table D22. Possible Repairs for Traffic Controls to Improve Condition.

POSSIBLE REPAIRS FOR TRAFFIC CONTROLS TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>EXISTING 1992 COST FROM DEPOT</i>				\$5,000
<i>SUBTOTAL</i>				\$5,000
Inflation for 1993			5%	\$5,250
Inflation for 1994			5%	\$5,513
Contingency (of sub-total)			10%	\$551
Contingency (of sub-total)			30%	\$1,654
TOTAL with 10% contingency				\$6,064
TOTAL with 30% contingency				\$7,166
ROUNDED TO				\$6,000
ROUNDED TO				\$7,000

Traffic Control - Improvements

The city of Sacramento did a traffic flow study in and around the depot. This study recommends installing two traffic control lights immediately and an additional two lights later as the area starts to develop. USACERL concurs with this recommendation. They should install the first two lights at the intersection of Florin-Perkins road and the main parking lot of the depot and on the access road to Foodlink.

The estimate for this project was to install new traffic control signals at four intersections. Each intersection would have a the foundations for the lights dug out, and concrete installed as a strong base. The lights would then be installed so that there is signal at each corner, controlling two directions. The signals are fully-actuated by detectors in all of the streets. They are also equipped with pedestrian push buttons.

Table D23. Traffic Control Possible Improvements.

TRAFFIC CONTROL POSSIBLE IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>INSTALL FOUNDATIONS</i>				
Excavate for found. (5'-0" deep x 24" dia., 4 / Intersection)	16	Cubic Yards	\$6.00	\$96
Concrete found. (6'-0" high x 24" dia., 4 / Intersection)	16	Cubic Yards	\$370.00	\$5,920
<i>INSTALL TRAFFIC CONTROL SIGNALS</i>				
Eight signals (2 ea. direction) programmed / intersection	4	Intersection	\$40,900.00	\$163,600
Fully actuated, detectors in all streets / intersection	4	Intersection	\$7,575.00	\$30,300
Pedestrian pushbutton	4	Intersection	\$4,550.00	\$18,200
<i>SUBTOTAL</i>				\$218,116
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$241,236
Contingency (of sub-total)			10%	\$24,124
Contingency (of sub-total)			30%	\$72,371
TOTAL with 10% contingency				\$265,360
TOTAL with 30% contingency				\$313,607
ROUNDED TO				\$270,000
ROUNDED TO				\$310,000

Airfields/Heliports - Condition

There are no separate airfields and one small heliport on the depot. An airfield was built when the depot was first constructed. Part of the airfield has since converted back into a street and the heliport can only be used when traffic is blocked off. USACERL recommends that the heliport be abandoned in place and no further maintenance be done on it. The depot is spending the following on maintaining the heliport.

Table D24. Possible Repairs for Airfield/Heliport to Improve Condition.

POSSIBLE REPAIRS FOR AIRFIELD/HELIPORT TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>EXISTING 1992 COST</i>				\$500
<i>SUBTOTAL</i>				\$500
Inflation for 1993			5%	\$525
Inflation for 1994			5%	\$551
Contingency (of sub-total)			10%	\$55
Contingency (of sub-total)			30%	\$165
TOTAL with 10% contingency				\$606
TOTAL with 30% contingency				\$717
ROUNDED TO				\$600
ROUNDED TO				\$700

Utilities - Water

Domestic Water - Condition

The 63,000 linear feet of pipe in the domestic water system are in Good condition. This is due to some minor corrosion, minor amounts of water in valve bases, some inoperative valves, and minor amounts of leaking packing. USACERL assumed that the current amount of money being spend on the repairs by the depot will bring the condition to Excellent.

Table D25. Domestic Water System Possible Repairs to Improve Condition.

DOMESTIC WATER SYSTEM POSSIBLE REPAIRS TO IMPROVE CONDITION	
Action	Total Cost
<i>Existing 1992 from Depot</i>	\$75,670
SUBTOTAL	\$75,670
Inflation for 1993	\$3,784
Inflation for 1994	\$3,972
Contingency of sub-total (10%)	\$8,342
Contingency of sub-total (30%)	\$25,027
TOTAL with 10% Contingency	\$91,768
TOTAL with 30% Contingency	\$108,453
ROUNDED TO	\$90,000
ROUNDED TO	\$110,000

Domestic Water - Improvements

The information that USACERL currently has is not adequate to determine whether or not system will meet future demands. USACERL recommends that a hydraulic analysis needs to be performed to determine if future needs can be meet. Since water demands have been meet on the post, USACERL assumed that the capacity of the system does not need to be increased or upgraded to encourage economic development just based on the number of personnel.

1. Currently, the water system will support adequate fire protection. However, as tenants move on and start to reuse the depot, building use will change. This will cause an increase demand for water to meet the requirement for fire protection. To meet this new requirement improvements are necessary to meet city of Sacramento fire fighting studies. This could mean total replacement of the system. This should include excavating for new lines, upgrading pipes sizes, installing additional lines to increase fire flow capacity, fittings, valves and manholes, replacing all the fire hydrants, and replacing missing values.

Table D26. Domestic Water System Possible Improvements.

DOMESTIC WATER SYSTEM POSSIBLE IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>PIPE INSTALLATION</i>				
Saw Cut Asphalt 6" deep	126,000	Linear Feet	\$3.64	\$458,640
Remove Asphalt (63,000 lf x 3' w)	21,000	Square Yard	\$6.80	\$142,800
Pre-made assembly of				
Excavation of Trench (63,000 lf x 4' w x 8' d)				
Install backfill				
Compact backfill				
Remove excess				
TOTAL FOR THIS ASSEMBLY	63,000	Linear Feet	\$12.85	\$809,550
Asphalt Binder	21,000	Square Yard	\$5.35	\$112,350
Asphalt Wearing	21,000	Square Yard	\$5.85	\$122,850
Compact 6" Lifts, 2 Passes	10,500	Cubic Yard	\$0.32	\$3,360
<i>INSTALL PIPE SIZES OF:</i>				
18"	3,400	Linear Feet	\$28.50	\$96,900
14"	17,300	Linear Feet	\$23.00	\$397,900
12"	13,000	Linear Feet	\$18.50	\$240,500
10"	10,000	Linear Feet	\$14.20	\$142,000
8"	10,000	Linear Feet	\$11.15	\$111,500
6"	1,000	Linear Feet	\$8.45	\$8,450
4"	2,800	Linear Feet	\$7.40	\$20,720
3"	1,000	Linear Feet	\$1.90	\$1,900
2 1/2"	2,000	Linear Feet	\$1.50	\$3,000
2"	1,500	Linear Feet	\$1.20	\$1,800
Assorted pipe fittings (est.)	300	ea	\$335.00	\$100,500
Assorted valves (est.)	300	ea	\$600.00	\$180,000
<i>INSTALL WATER HYDRANTS</i>				
Saw Cut Asphalt (6" deep)	4,800	Linear Feet	\$3.64	\$17,472
Remove Asphalt (120 x 10' w x 10' l)	1,300	Square Yard	\$4.19	\$5,447
Pre-made assembly of:				
Excavation hole (120 holes x 10' w x 10' l x 8' deep)				
Install backfill				
Compact backfill				
Remove excess backfill				
TOTAL FOR THIS ASSEMBLY	2,400	Linear Feet	\$12.85	\$30,840
Water Hydrant, Two Way 8' 0"	120	each	\$1,175.00	\$141,000
Gate Valve, Flanged, 6"	120	each	\$380.00	\$45,600
<i>SUBTOTAL</i>				
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$3,533,757
Contingency (of sub-total)			10%	\$353,376
Contingency (of sub-total)			30%	\$1,060,127
TOTAL with 10% Contingency				\$3,887,133

Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
TOTAL with 30% Contingency				\$4,593,885
ROUNDED TO				\$3,890,000
ROUNDED TO				\$4,590,000

Storm Sewer - Condition and Improvements

The storm sewer system at SADA has two distinct parts. The first part is the main lines and laterals that are in Very Good condition. This is due to a detailed inspection of the system done by a previous condition survey [9].

The second part of the storm sewer system is open ditch drainage. This part is in Poor condition. This is evident by the standing water on the western side of the depot. After investigation of Master Planning maps and photos taken during the site visit, USACERL found that the open drainage ditches do not sufficiently slope and are clogged with vegetation. Further review of condition surveys done by outside sources confirmed the observations [9]. By cutting the open drainage ditches to provide adequate slope and removing the vegetation should bring the condition to Excellent.

For the improvement of the condition rating of the storm system at SADA, USACERL estimated two costs. First is the cost to do minor repairs on the existing main lines and laterals. This estimate was taken from the Foster Wheeler Survey. Secondly is the cost to recut all of the open ditches. There were two passes by a grader on each side if in an open area, and one side if by a road. This estimate also included the cost to drop the culverts and reseed the graded areas.

When the storm system was designed, it was based on the "20 year" storm. This means that the system was designed to handle all of the water from the worst storm over a 20 year period. Since no new land has been developed since the depot was first constructed and the "20 year" storm has not changed, it can be concluded that the system will continue to be adequate for the needs of the depot.

Table D27. Possible Pipe Repairs for Storm Sewer System to Improve Condition.

POSSIBLE STORM SYSTEM REPAIRS TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
Repairs per survey				
	1	ea		\$80,000
RECUTTING DITCHES				
Grade One Side (7,200 lf x 10' w x 4 passes)	32,000	Square Yard	\$0.58	\$18,560
Fertilize & Seed (7,200 lf x 10' w)	72,000	Square Feet	\$0.50	\$36,000

Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
Grade Both Sides (3,600 lf x 10' x 4 passes x 2 sides)	32,000	Square Yard	\$0.58	\$18,560
Fine Grade, Lime, Fertilize & Seed	72,000	Square Feet	\$0.50	\$36,000
Hand digging	1,000	Cubic yard	\$33.00	\$33,000
DROP CULVERTS				
Saw Cut Asphalt (21 lf x 2 sides x 30 cul)	1,260	Linear Foot	\$3.64	\$4,586
Remove Asphalt (21 lf x 3' w x 30 cul)	250	Square Yard	\$4.19	\$1,048
Pre-made assembly of:				
Excavate Trench - 21 lf x 3' w x 8' deep x 30 cul				
Backfill (6" d x 21 lf x 30 cul)				
Compaction				
Remove excess soil				
TOTAL FOR THIS ASSEMBLY	630	Linear Feet	\$12.85	\$8,096
Replace Culvert	30	each	\$15.35	\$461
Asphalt Binder	250	Square Yard	\$5.35	\$1,338
Asphalt Wearing	250	Square Yard	\$5.85	\$1,463
Compact 6" Lifts, 2 Passes	125	Cubic Yard	\$0.32	\$40
SUBTOTAL				\$239,150
City Cost Index Number			1.106	
SUBTOTAL				\$264,500
Contingency (of sub-total)			10%	\$26,450
Contingency (of sub-total)			30%	\$79,350
TOTAL with 10% Contingency				\$290,950
TOTAL with 30% Contingency				\$343,850
ROUNDED TO				\$290,000
ROUNDED TO				\$340,000

Sanitary Sewer - Condition

There are 41,000 linear feet of pipe in the sanitary sewer system at SADA. This system is in Good condition as shown by the results of a previous condition survey [8]. This is because there are some broken pipes and manholes that need replacement. USACERL used existing costs from the Foster Wheeler Survey to estimate the cost to improve the condition of the sanitary sewer system at SADA.

Table D28. Possible Repairs for Sanitary Sewer System to Improve Condition.

POSSIBLE REPAIRS FOR SANITARY SEWER SYSTEM TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>COST FROM SURVEY</i>				\$172,000
<i>SUBTOTAL</i>				\$172,000
Contingency (of sub-total)			10%	\$17,200
Contingency (of sub-total)			30%	\$51,600
TOTAL with 10% contingency				\$189,200
TOTAL with 30% contingency				\$223,600
ROUNDED TO				\$190,000
ROUNDED TO				\$220,000

Sanitary Sewer - Improvements

The system does not need be increased and/or upgraded to encourage economic growth. This is because the traditional method of designing the sanitary sewer systems is with a safety factor of two. This means that the current system is more than double that needed for depot personnel.

However, if the need does increase because the economic development was so great, the city will need to upgrade or replace the system. To increase the capacity of the sanitary sewer system at SADA, the USACERL estimate excavates a trench, installs new pipes (increased each pipe by one size), left the old pipes abandoned, and installs additional fittings and valves. In addition, the estimate includes additional manholes, and a lift station for transport.

Table D29. Sanitary Sewer System Possible Improvements.

SANITARY SEWER SYSTEM POSSIBLE IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>PIPE INSTALLATION</i>				
Saw Cut Asphalt 6" deep	82,000	Linear Foot	\$3.64	\$298,480
Remove Asphalt (41,000 lf x 3' w)	14,000	Square Yard	\$6.80	\$95,200

Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
Pre-made assembly of:				
Excavate trench (41,000 lf x 4' w x 8' d)				
Backfill trench (41,000 lf x 6" d)				
Compact backfill				
Remove excess				
TOTAL FOR THIS ASSEMBLY	41,000	Linear Foot	\$12.85	\$526,850
Asphalt Binder	14,000	Square Yard	\$5.35	\$74,900
Asphalt Wearing	14,000	Square Yard	\$5.85	\$81,900
Compact 6" Lifts, 2 Passes	7,000	Cubic Yard	\$0.32	\$2,240
<i>INSTALL PIPE SIZES</i>				
24"	2,100	Linear Foot	\$10.25	\$21,525
21"	2,500	Linear Foot	\$8.35	\$20,875
18"	1,800	Linear Foot	\$6.75	\$12,150
15"	5,000	Linear Foot	\$5.50	\$27,500
12"	13,200	Linear Foot	\$4.73	\$62,436
10"	13,600	Linear Foot	\$3.84	\$52,224
8"	2,700	Linear Foot	\$3.47	\$9,369
6"	100	Linear Foot	\$3.15	\$315
Assorted pipe fittings (est.)	300	ea	\$345.00	\$103,500
<i>LIFT STATIONS</i>				
Lift Station & Installation	1	Each	\$54,000.00	\$54,000
<i>UTILITY MANHOLES</i>				
Saw Cut Asphalt (10 lf x 4 x 100, 6" deep)	4,000	Linear Foot	\$3.64	\$14,560
Remove Asphalt (10 lf x 10' w x 100 ea)	1,100	Square Yard	\$6.80	\$7,480
Pre-made assembly of:				
Excavate trench (10 lf x 10' w x 8' deep x 100 ea)				
Backfill trench				
Compact trench				
Remove excess				
TOTAL FOR THIS ASSEMBLY	2,500	Linear Foot	\$12.85	\$32,125
Asphalt Binder	1,100	Square Yard	\$5.35	\$5,885
Asphalt Wearing	1,100	Square Yard	\$5.85	\$6,435
Compact 6" Lifts, 2 Passes	550	Cubic Yard	\$0.32	\$176
Manhole, precast 4' w x 6' d (est.)	100	each	\$770.00	\$77,000
Manhole covers	100	Each	\$280.00	\$28,000
<i>SUBTOTAL</i>				\$1,615,125
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$1,786,328
Contingency (of sub-total)			10%	\$178,633
Contingency (of sub-total)			30%	\$535,898

Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
TOTAL with 10% Contingency				\$1,964,961
TOTAL with 30% Contingency				\$2,322,227
ROUNDED TO				
ROUNDED TO				\$1,960,000
				\$2,320,000

Industrial Wastewater - Condition

The present industrial wastewater system at Sacramento Army Depot consists of a primary and secondary clarifier, an oil-water separator, and 1,000 linear feet of pipe. The depot has the current permit to discharge the treated water into the county's sanitary sewer system. The system is in Excellent condition. USACERL assumed that this is the annual maintenance costs because no other data is available and that this amount of money will maintain the Excellent condition. It is also assumed that this includes inspection of the system and replacing of parts as required.

Table D30. Possible Repairs for Industrial Wastewater System to Improve Condition.

POSSIBLE REPAIRS FOR INDUSTRIAL WASTE SYSTEM TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>EXISTING 1992 COST</i>				\$34,341
<i>SUBTOTAL</i>				\$34,341
Inflation for 1993			5%	\$36,058
Inflation for 1994			5%	\$37,861
Contingency (of sub-total)			10%	\$3,786
Contingency (of sub-total)			30%	\$11,358
TOTAL with 10% contingency				\$41,647
TOTAL with 30% contingency				\$49,219
ROUNDED TO				\$40,000
ROUNDED TO				\$50,000

Industrial Wastewater - Improvements

It is very difficult to determine what improvements will need to be made to the industrial wastewater system without knowing what chemicals will be discharged by the new tenants. Since the maintenance mission of the depot ended in early 1994, the system has not been used. If the assumption is made that the new tenant will discharge the same types of wastes, then the current system will be adequate.

If the new tenants will be discharge different types or amounts of wastes, additional industrial wastewater system will need to be installed. USACERL assumed that the worst case would be that the current system will have to be doubled in capacity to meet anticipated needs. Since the Means Cost Estimating Books [3,12] did not have costs to estimate costs, another source had to be found.

USACERL called several different architect/engineering firms for a ballpark estimate of what it would cost to construct the system. Of all the individuals called, only one from Black and Vetch, Kansas City, Missouri, would give an estimate. He based his estimate on a similar job that he had done around \$1.03 million. (USACERL ranged this from \$960,000 to \$1,100,000.) He specifically mentioned that this number is only for planning purposes only and that an industrial wastewater system must be designed with the specific waste discharge in mind for any cost estimate number to be accurate.

Utilities - Energy

Electrical - Condition

The 71,000 linear feet of overhead distribution lines, 17,000 linear feet of underground lines, and 20,154 KVA total transformer capacity are in Excellent condition by visual inspection. There was not sufficient time to check functionality of the system to find any other distress. To determine the cost of improving the condition of the electrical system at SADA, USACERL used the existing maintenance costs from the 1992 Red Book [4].

Table D31. Possible Repairs for Electric System to Improve Condition.

POSSIBLE REPAIRS FOR ELECTRIC SYSTEM TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
EXISTING 1992 COST				\$100,290
SUBTOTAL				\$100,290
Inflation for 1993			5%	\$105,305
Inflation for 1994			5%	\$110,570
Contingency (of sub-total)			10%	\$11,057
Contingency (of sub-total)			30%	\$33,171
TOTAL with 10% contingency				\$121,627
TOTAL with 30% contingency				\$143,741
ROUNDED TO				\$120,000
ROUNDED TO				\$140,000

Electrical - Improvements

The electrical distribution system on the depot was recently upgraded to 10 MVA, with stepdown to 12.4 KVA. This has been adequate for the depot needs. However, as additional tenants move onto the depot, the electrical requirements may increase. USACERL assumed that the worst case would require the system to be upgraded.

This estimate is for removing the existing overhead lines and replacing them with a size of wire that can carry at least 125% more capacity. It also includes dropping all pole-mounted transfers, increasing their capacity, and putting them on the ground to improve working conditions. Each transformer on the ground will need a fence put around it for security.

Table D32. Possible Electrical System Improvements.

POSSIBLE ELECTRICAL SYSTEM IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>DEMOLITION OF EXISTING</i>				
Remove existing O.H. power lines (3-2/0 alum. wire,				
71,000 linear feet x 3 wires)	213,000	Linear Feet	\$0.25	\$52,185
Remove existing pole mounted transformers	110	Each	\$325.00	\$35,750
<i>INSTALL OVERHEAD POWER LINES Install new overhead power lines (3-3/0 copper wire,</i>				
71,000 linear feet x 3 wires)	213,000	Linear Feet	\$2.50	\$532,500
<i>TRANSFORMERS (Replace pole mounted transformers w/ pad mounted transformers to increase the capacity)</i>				
3 Phase:				
30 KVA	10	Each	\$2,200.00	\$22,000
75 KVA	40	Each	\$3,550.00	\$142,000
112.5 KVA	10	Each	\$4,450.00	\$44,500
225 KVA	10	Each	\$7,375.00	\$73,750
Single Phase:				
25 KVA	10	Each	\$1,750.00	\$17,500
37.5 KVA	10	Each	\$2,275.00	\$22,750
50 KVA	10	Each	\$2,725.00	\$27,250
75 KVA	10	Each	\$3,400.00	\$34,000
<i>TRANSFORMERS (Replace existing pad mounted transformers w / new to increase capacity)</i>				
3 Phase:				
150 KVA	5	Each	\$13,900.00	\$69,500
225 KVA	5	Each	\$17,600.00	\$88,000
300 KVA	10	Each	\$22,100.00	\$221,000
500 KVA	10	Each	\$28,600.00	\$286,000
750 KVA	10	Each	\$35,300.00	\$353,000
1000 KVA	10	Each	\$40,000.00	\$400,000
<i>INSTALL CONCRETE PADS (For each transformer that is removed from utility poles)</i>				
Clear ground and prepare for base	756	Square Yards	\$1.29	\$975

Action	Quantity	Unit of Measure	Cost/unit	Total Cost
Install crushed gravel base	260	Cubic Yards	\$34.50	\$8,970
Compaction of base (walk behind, 2 passes)	260	Cubic Yards	\$1.18	\$307
Formwork (wood, 17 forms, 4 uses each)	680	Linear Feet	\$2.50	\$1,700
Concrete (10' - 0" x 10' - 0" x 6" = 1.85 C.Y. x 68 pads)	126	Cubic Yards	\$57.00	\$7,182
Reinforcing (6 x 6 WWF)	68	100 Square Feet	\$48.50	\$3,298
Finishing (broom finish)	6800	Square Feet	\$0.52	\$3,536
Remove forms	2720	Linear Feet	\$0.50	\$1,360
INSTALL CHAIN LINK FENCE AROUND EACH TRANSFORMER				
Fencing (10' - 0" x 10' - 0" x 6' - 0" high w / 3 strands of barbed wire, 9 GA. aluminum steel)	2720	Linear Feet	\$14.20	\$38,624
Corner posts (4 per pad)	272	Each	\$101.00	\$27,472
Gate (1 per pad)	68	Each	\$252.00	\$17,136
Bracing (3 per pad)	204	Each	\$37.00	\$7,548
Concrete filled pipe bumpers (4 per pad)	272	Each	\$100.00	\$27,200
SUBTOTAL				\$2,566,993
City Cost Index Number			1.106	
SUBTOTAL				\$2,839,094
Contingency (of sub-total)			10%	\$283,909
Contingency (of sub-total)			30%	\$851,728
TOTAL with 10% contingency				\$3,123,004
TOTAL with 30% contingency				\$3,690,823
ROUNDED TO				\$3,120,000
ROUNDED TO				\$3,690,000

Natural Gas - Condition

Based on a previous condition survey, the 36,000 linear feet of pipe in natural gas system are in Good condition. The cathodic protection system has failed, the pipes are in Good to Excellent condition, and the protective wrap around the pipe is in Fair to Poor Condition.

Table D35. Possible Repairs for Natural Gas System to Improve Condition.

POSSIBLE REPAIRS FOR NATURAL GAS SYSTEM TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>COST for repairs from survey</i>				\$83,000
<i>SUBTOTAL</i>				\$83,000
Contingency (of sub-total)			10%	\$8,300
Contingency (of sub-total)			30%	\$24,900
TOTAL with 10% contingency				\$8,300
TOTAL with 30% contingency				\$24,900
ROUNDED TO				\$91,000
ROUNDED TO				\$108,000

Natural Gas - Improvements

Additional lines to upgrade the capacity of the system are not necessary at this time because there are lines to most of the major buildings. If the growth rate exceeds the anticipated demand or the local utility company requires the installation of high-pressure lines, then upgrading the system (additional lines, replacing low pressure with high pressure pipe, upgrading meters and valves, etc.) should be done. The estimated cost to improve the natural gas system includes excavating for the pipe and manholes and the installation of new high-pressure piping and utility manholes for maintenance.

Table D36. Natural Gas System Possible Improvements.

NATURAL GAS SYSTEM POSSIBLE IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
PIPE INSTALLATION				
Saw Cut Asphalt (6" deep)	44,000	Linear Foot	\$3.64	\$160,160
Remove Asphalt (22,000 lf x 3' w)	7,500	Square Yard	\$6.80	\$51,000
Pre-made assembly of:				
Excavate trench (22,000 lf x 4' w x 8' d)				
Install backfill 6" deep				

Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
Compaction				
Remove Excess Spoil				
TOTAL FOR THIS ASSEMBLY	22,000	Linear Foot	\$12.85	\$282,700
Asphalt Binder	7,500	Square Yard	\$5.35	\$40,125
Asphalt Wearing	7,500	Square Yard	\$5.85	\$43,875
Compact 6" Lifts, 2 Passes	3,750	Cubic Yard	\$0.32	\$1,200
<i>INSTALL PIPE SIZES:</i>				
12"	2,800	Linear Foot	\$85.50	\$239,400
8"	1,000	Linear Foot	\$58.50	\$58,500
6"	3,800	Linear Foot	\$42.00	\$159,600
4"	5,700	Linear Foot	\$27.50	\$156,750
3"	200	Linear Foot	\$12.75	\$2,550
2"	5,100	Linear Foot	\$8.80	\$44,880
1.25"	3,400	Linear Foot	\$8.00	\$27,200
Assorted pipe fittings (est.)	300	ea	\$204.00	\$61,200
Assorted valves (est.)	50	ea	\$1,450.00	\$72,500
<i>UTILITY MANHOLES</i>				
Saw Cut Asphalt 10 lf x 4 x 50 ea, 6" deep)	2,000	Linear Foot	\$3.64	\$7,280
Remove Asphalt (10 lf x 10' w x 50 ea)	550	Square Yard	\$6.80	\$3,740
Pre-made assembly of:				
Excavate trench (10 lf x 10' w x 50 ea)				
Backfill				
Compact				
Remove Excess				
TOTAL FOR THIS ASSEMBLY	1,250	Linear Foot	\$12.85	\$16,063
Asphalt Binder	550	Square Yard	\$5.35	\$2,943
Asphalt Wearing	550	Square Yard	\$5.85	\$3,218
Compact 6" Lifts, 2 Passes	225	Cubic Yard	\$0.32	\$72
Manhole, precast 4'x6'x7'	50	each	\$770.00	\$38,500
<i>SUBTOTAL</i>				\$1,473,455
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$1,629,641
Contingency (of sub-total)			10%	\$162,964
Contingency (of sub-total)			30%	\$488,892
TOTAL with 10% Contingency				\$1,792,605
TOTAL with 30% Contingency				\$2,118,533
ROUNDED TO				\$1,790,000
ROUNDED TO				\$2,120,000

Heating - Condition

The depot has a central heating plant that produces 62 MBtu with 34,000 liner feet of overhead lines. There are also several small heating systems (17) in the outer parts of the depot that will produce a total of 35 MBtu. All heating systems use natural gas, so it is a clean operation. The central heating plant is in Excellent condition and will require annual maintenance to maintain it at this condition. The inspection personnel did not inspect the smaller heating systems, but according to depot personnel, they are also in Excellent condition. USACERL assumed that the amount of money currently spent on these systems will maintain them at present condition. To determine the cost of improving the condition of the heating system at SADA, USACERL used the existing maintenance costs from the 1992 Red Book [4].

Table D37. Possible Repairs for Heating System to Improve Condition.

POSSIBLE REPAIRS FOR HEATING SYSTEM TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
EXISTING 1992 COST				\$827,088
SUBTOTAL				\$827,088
Inflation for 1993			5%	\$868,442
Inflation for 1994			5%	\$911,865
Contingency (of sub-total)			10%	\$91,186
Contingency (of sub-total)			30%	\$273,559
TOTAL with 10% contingency				\$1,003,051
TOTAL with 30% contingency				\$1,185,424
ROUNDED TO				\$1,000,000
ROUNDED TO				\$1,190,000

Heating - Improvements

For the current usage of the depot (mostly storage supplemented with administration), this system is adequate. However, the current anticipated reuse of the depot, this will not be adequate. The reuse plan converts mostly storage space into production space. Changing the needs of the warehouses from an average low temperature of 45 °F to 70 °F in the winter will require additional heat. It would be in the best interest of the City to have the new owners install their own heating systems.

As a worst-case scenario, USACERL assumed that the city will have to upgrade the existing system. Therefore, the estimate below the installation of new boilers, new supply and return lines, new concrete steam pits, new valves and strainers, all of the required excavation and demolition, and the installation of a pre-engineered building to put the new boilers in.

Table D38. Install Additional Heating Capacity.

INSTALL ADDITIONAL HEATING CAPACITY				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
293,000 sf x 12' h x ((6.2 - 5.5) x .57) Means factors per warehouse to factory				
1,402,884 BTU * 8 warehouses = 11,223 MBTU				
<i>INSTALL NEW BOILERS FOR 13,940 MBTU</i>				
6,970 MBTU with controls	2	ea	\$80,000.00	\$160,000
Piping 6"	400	lf	\$75.00	\$30,000
Assorted pipe fittings	100	ea	\$420.00	\$42,000
Pipe Insulation	400	lf	\$20.00	\$8,000
Blown down system	4	ea	\$3,075.00	\$12,300
Burners	4	ea	\$6,500.00	\$26,000
Draft Controls	4	ea	\$605.00	\$2,420
Assorted valves	50	ea	\$600.00	\$30,000
Pumps and motor sets	6	ea	\$2,925.00	\$17,550
Condensate Tank	2	ea	\$7,750.00	\$15,500
<i>BUILDING FOR NEW BOILERS NEXT TO EXISTING</i>				
Pre Engineered bldg (100' x 500')	50,000	Square Foot	\$3.95	\$197,500
Installation	50,000	Square Foot	\$2.60	\$130,000
Saw Cut concrete 6" deep	1,200	Linear Feet	\$7.26	\$8,712
Remove concrete (50,000 sf x 6")	5,600	Square Yard	\$11.20	\$62,720
Excavate footings (1,200 lf x 4' d x 1' w)	200	Cubic yards	\$5.40	\$1,080
Excavate floor (50,000 sf x 6")	1,000	Cubic yards	\$5.40	\$5,400
Pour Footings & Foundation	200	cubic yards	\$151.00	\$30,200
Pour Floor	1,000	Cubic yards	\$102.00	\$102,000
<i>ADDITIONAL STEAM LINES TO BUILDINGS</i>				
Piping 6"	10,000	lf	\$75.00	\$750,000
Assorted pipe fittings	600	ea	\$262.00	\$157,200
Pipe Insulation	10,000	lf	\$20.00	\$200,000

Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>PIPE INSTALLATION</i>				
Saw Cut Asphalt 6" deep	20,000	Linear Foot	\$3.64	\$72,800
Remove Asphalt (10,000 lf x 3' w)	1,700	Square Yard	\$4.19	\$7,123
Pre-made assembly of:				
Excavate trench (5,000 lf x 4' w x 8' d)				
Backfill				
Compaction				
Remove Excess				
TOTAL FOR THIS ASSEMBLY	10,000	Linear Foot	\$12.85	\$128,500
Asphalt Binder	1,700	Square Yard	\$5.35	\$9,095
Asphalt Wearing	1,700	Square Yard	\$5.85	\$9,945
Compact 6" Lifts, 2 Passes	850	Cubic Yard	\$0.32	\$272
<i>SUBTOTAL</i>				\$2,216,317
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$2,451,247
Contingency (of sub-total)			10%	\$245,125
Contingency (of sub-total)			30%	\$735,374
TOTAL with 10% Contingency				\$2,696,371
TOTAL with 30% Contingency				\$3,186,621
ROUNDED TO				\$2,700,000
ROUNDED TO				\$3,190,000

Air Conditioning - Condition

The depot has a distributed air-conditioning system that should produce 110 tons of cooling capacity. Most of this system is in evaporative coolers with a scattering of central air units. USACERL could not evaluate the coolers because the depot had winterized the system. However, information from depot personnel will place this system in the Very Good category. USACERL assumed that the current amount of money being spent could possibly bring this system up to Excellent. To determine the cost of improving the condition of the air conditioning system at SADA, USACERL used the existing maintenance costs from the 1992 Red Book [4].

Table D39. Possible Repairs for Cooling System to Improve Condition.

POSSIBLE REPAIRS FOR COOLING SYSTEM TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>EXISTING 1992 COST</i>				\$179,321
<i>SUBTOTAL</i>				\$179,321
Inflation for 1993			5%	\$188,287
Inflation for 1994			5%	\$197,701
Contingency (of sub-total)			10%	\$19,770
Contingency (of sub-total)			30%	\$59,310
TOTAL with 10% contingency				\$217,472
TOTAL with 30% contingency				\$257,012
ROUNDED TO				\$220,000
ROUNDED TO				\$260,000

Air Conditioning - Improvements

For the current usage of the depot, mostly storage and administration, this system is adequate. However, the current anticipated reuse of the depot, this will not be adequate. The new use will be mostly production and administration. Lowering the temperature of the converted warehouse space to/ends acceptable for production in the summer will require additional air conditioning. It would be in the best interest of the city to have the new owners install their own cooling systems and not incur this cost. The improvements to the air conditioning system were calculated using the Means Facility Cost Estimating Book

[12], based on the total square footage of the warehouses.

Table D40. Install Additional Cooling Capacity.

INSTALL ADDITIONAL COOLING CAPACITY				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
293,000 sf x 40 BTUH/sf (Means Factor) x 8 bldgs = 93.76 MBTU				
93.76 MBTU * (1 ton/12000 BTU) = 7,800 tons required to cool warehouses to factory standards				
<i>INSTALL ADDITIONAL A/C UNITS TO TOTAL OF 8,400 TONS ON ROOFTOP</i>				
210 Ton unit	40	ea	\$127,500.00	\$5,100,000
Piping set up	400	lf	\$75.00	\$30,000
Run electrical lines	33,600	lf	\$8.55	\$287,280
SUBTOTAL				\$5,417,280
City Cost Index Number			1.106	
SUBTOTAL				\$5,991,512
Contingency (of sub-total)			10%	\$599,151
Contingency (of sub-total)			30%	\$1,797,454
TOTAL with 10% Contingency				\$6,590,663
TOTAL with 30% Contingency				\$7,788,965
ROUNDED TO				\$6,590,000
ROUNDED TO				\$7,790,000

Buildings

Demolition

To encourage economic development of the depot, the city recommends removing several frame and permanent buildings [1]. This plan shows a total of 861,500 square feet of permanent construction and 419,000 square feet of frame construction (with 88,000 having asbestos siding) requiring demolishing.

Table D41. Building Demolition Costs for Concrete Buildings.

BUILDING DEMOLITION FOR CONCRETE BUILDINGS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>DEMOLITION OF BUILDING AND REMOVAL</i>				
243,000 sf x 12' concrete warehouse	2,916,000	Cubic feet of bldg Space	\$0.60	\$1,749,600
<i>SUBTOTAL</i>				\$1,749,600
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$1,935,058
Contingency (of sub-total)			10%	\$193,506
Contingency (of sub-total)			30%	\$580,517
TOTAL with 10% Contingency				\$2,128,563
TOTAL with 30% Contingency				\$2,515,575
Cost/SF with 10% Contingency				\$7.26
Cost/SF with 30% Contingency				\$8.59
ROUNDED TO				\$7
ROUNDED TO				\$9
Amount of concrete bldgs at SADA	861,500	Square Foot		\$6,030,000
Requiring demolition	861,500	Square Foot		\$7,750,000

Table D42. Building Demolition Costs for Frame Buildings.

BUILDING DEMOLITION FOR FRAME BUILDINGS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>BUILDING DEMOLITION AND REMOVAL</i>				
Wood frame Bldg	96,795	Cubic foot of bldg	\$0.23	\$22,263
6,453 sf x 15' h				
<i>SUBTOTAL</i>				\$22,263
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$24,623
Contingency (of sub-total)			10%	\$2,462
Contingency (of sub-total)			30%	\$7,387
TOTAL with 10% Contingency				\$27,085
TOTAL with 30% Contingency				\$32,010
Cost/SF with 10% Contingency				\$4.20
Cost/SF with 30% Contingency				\$4.96
ROUNDED TO				\$4
ROUNDED TO				\$5
Amount of frame bldgs at SADA	331,000	Square Foot		\$1,320,000
Requiring demolition	331,000	Square Foot		\$1,660,000

Table D43. Demolition Costs for Asbestos-Clad Frame Buildings.

BUILDING DEMOLITION FOR ASBESTOS FRAME BUILDINGS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>BUILDING DEMOLITION</i>				
Wood frame Bldg	26,640	Cubic foot of bldg	\$0.23	\$6,127
2,220 sf x 12' h bldg 600				
Remove Asbestos Siding	2,400	Square Feet	\$4.69	\$11,256
(37' w x 12' h x 2) + (60' w x 12' h x 2)				
Bag Asbestos	1,200	Cubic feet	\$2.90	\$3,480
Disposal of asbestos	50	Cubic yards	\$150.00	\$7,500
SUBTOTAL				\$28,363
City Cost Index Number			1.106	
SUBTOTAL				\$31,370
Contingency (of sub-total)			10%	\$3,137
Contingency (of sub-total)			30%	\$9,411
TOTAL with 10% Contingency				\$34,507
TOTAL with 30% Contingency				\$40,781
Cost/SF with 10% Contingency				\$17.25
Cost/SF with 30% Contingency				\$20.39
ROUNDED TO				\$17.00
ROUNDED TO				\$20.00
Amount of asbestos frame bldgs at SADA	88,000	Square Foot		\$1,500,000
Requiring demolition	88,000	Square Foot		\$1,760,000

Table D44. Total Building Demolition Costs.

TOTAL BUILDING DEMOLITION REQUIRED				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
Low				
Amount of asbestos frame bldgs	88,000	Square Foot		\$1,500,000
Amount of frame bldgs	331,000	Square Foot		\$1,320,000
Amount of concrete bldgs	861,500	Square Foot		\$6,030,000
			TOTAL	\$8,850,000
High				
Amount of asbestos frame bldgs	88,000	Square Foot		\$1,760,000
Amount of frame bldgs	331,000	Square Foot		\$1,660,000
Amount of concrete bldgs	861,500	Square Foot		\$7,750,000
			TOTAL	\$11,170,000

Service Buildings - Condition

Sacramento Army Depot has maintained the service facilities of the health clinic and fire station in "excellent" condition. USACERL assumed that the amount of money being spent will maintain these buildings at Excellent condition. To determine the cost of improving the condition of the service buildings on the depot (medical clinic, fire station, etc.) at SADA, USACERL used the existing maintenance costs from the 1992 Red Book [4].

Table D45. Possible Repairs for Service Buildings to Improve Condition.

POSSIBLE REPAIRS FOR SERVICE BUILDINGS TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
EXISTING 1992 COST				\$5,000
SUBTOTAL				\$5,000
Inflation for 1993			5%	\$5,250
Inflation for 1994			5%	\$5,513
Contingency (of sub-total)			10%	\$551
Contingency (of sub-total)			30%	\$1,654
TOTAL with 10% contingency				\$6,064
TOTAL with 30% contingency				\$7,166
ROUNDED TO				\$6,000
ROUNDED TO				\$7,000

Service Buildings - Improvements

If the City had to come in and construct new service buildings to encourage economic development, the following cost estimate to do this work is based on the current existing square footage on the depot. It is not known what service facilities the city will require to maintain the facilities on the depot. As a worst case scenario, USACERL assumed that the city would have to construct as a minimum a new health clinic and a new fire station. Additional service facilities could be required to maintain the depot.

Table D46. New Service Buildings.

NEW/ADDITIONAL SERVICE BUILDINGS				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>NEW/ADDITIONAL CLINIC</i>				
To match existing	7,000	Square Foot	\$84.15	\$589,050
<i>NEW/ADDITIONAL FIRE STATION</i>				
To match existing	5,000	Square Foot	\$79.25	\$396,250
<i>SUBTOTAL</i>				\$985,300
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$1,089,742
Contingency (of sub-total)			10%	\$108,974
Contingency (of sub-total)			30%	\$326,923
TOTAL with 10% contingency				\$1,198,716
TOTAL with 30% contingency				\$1,416,664
ROUNDED TO				\$1,200,000
ROUNDED TO				\$1,420,000

Capital Improvements - Packard Bell

Table D47 contains information provided by Packard Bell for proposed improvements.

Table D47. Packard Bell Proposed Estimate.

Packard Bell Construction Estimate			
Action	SF	Cost/SF	Total
Building 255			
Add suspended ceiling and lighting	263,000	\$5.00	\$1,315,000
Add HVAC System	263,000	\$8.00	\$2,104,000
Add conductive floor	263,000	\$5.00	\$1,315,000
Install new electrical distribution system	263,000	\$4.00	\$1,052,000
Install compressed air	263,000	\$1.00	\$263,000
Install 30 bathroom stalls		\$150,000.00	\$150,000
Upgrade/replace sprinklers	263,000	\$1.50	\$394,500
TOTAL			\$6,593,500
Building 555			
Demolition		\$50,000.00	\$50,000
Add ceiling, lighting, flooring for demolished area	30,000	\$15.00	\$450,000
Remove existing sliding doors/replace with glass		\$3,600.00	\$3,600
TOTAL			\$503,600
Building 150			
Upgrade HVAC system (capital equipment, ducting)	111035	\$10.00	\$1,110,350
Install new carpeting	111035	\$7.00	\$777,245
Demolish existing partitions/install new with metal studs/drywall	111035	\$8.00	\$888,280
Install cabling	111035	\$1.00	\$111,035
Install new phone switch		\$750,000.00	\$750,000
Install new ceiling and lighting	111035	\$5.00	\$555,175
TOTAL			\$4,192,085
Buildings 251, 253, 257			
Add suspended ceiling and lighting	43000	\$5.00	\$215,000
Add conductive flooring	43000	\$5.00	\$215,000
Add HVAC system	305000	\$8.00	\$2,440,000
Install new electrical distribution system	174000	\$4.00	\$696,000
Install compressed air	131000	\$1.00	\$131,000
Install 90 bathroom stalls		\$450,000.00	\$450,000
Upgrade/replace sprinklers	658900	\$1.50	\$988,350
TOTAL			\$5,135,350
Site Improvements			
Construct link between buildings 251, 253, 255, 257		\$945,000.00	\$945,000
Install voice and data cabling across site		\$200,000.00	\$200,000
TOTAL			\$1,145,000
Grand Total			\$17,569,535

Capital Improvements - USACERL

Table D48 shows USACERL's estimates for the work covered by the Packard Bell estimates (Table D47).

Table D48. USACERL's Estimates for Packard Bell's Proposed Improvement.

USACERL Construction Estimate				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
Building 255				
Add suspended ceiling	263,000	Square Feet	\$4.06	\$1,067,780
Add lighting	263,000	Square Feet	\$1.63	\$428,690
Add HVAC System	263,000	Square Feet	\$6.00	\$1,578,000
Add conductive floor	263,000	Square Feet	\$6.65	\$1,748,950
Install new electrical distribution system	263,000	Square Feet	\$5.00	\$1,315,000
Install 30 bathroom stalls	30	Bathroom Stalls	\$3,523.70	\$105,711
Upgrade/replace sprinklers	263,000	Square Feet	\$2.01	\$528,630
Install compressed air (assembly)				
Air supply for pneumatic control system (including compressor, starter, alternator, piping, dryer, PRV station & filter)	5	Units	\$21,127.00	\$105,635
Pressure control and valves (15% of unit cost)				
2" Steel threaded pipe - Schedule 80	2,000	Linear Feet	\$17.45	\$34,900
3/8" Steel threaded pipe - Schedule 80	200	Linear Feet	\$9.85	\$1,970
Straight T fittings	100	Each	\$71.00	\$7,100
TOTAL				\$6,922,366
Building 555				
Demolition	15,000	Cubic Feet	\$1.53	\$22,950
Add ceiling	30,000	Square Feet	\$4.06	\$121,800
Add lighting	30,000	Square Feet	\$1.63	\$48,900
Add flooring	30,000	Square Feet	\$6.65	\$199,500
Remove existing sliding doors	3	Doors	\$55.00	\$165
Replace doors	3	Doors	\$1,175.00	\$3,525
TOTAL				\$396,840
Building 150				
Remove HVAC System	111,035	Square Feet	\$2.64	\$293,132
Add HVAC System	111,035	Square Feet	\$6.00	\$666,210
Install new carpeting	12,337	Square Yards	\$22.00	\$271,419
Demolish existing partitions	111,035	Square Feet	\$1.53	\$169,884
Install new partitions with metal studs & drywall	111,035	Square Feet	\$6.31	\$700,631
Install computer cabling	111,035	Square Feet	\$0.10	\$11,104
Install new phone switch				\$750,000
Install new ceiling	111,035	Square Feet	\$4.06	\$450,802
Install lighting	111,035	Square Feet	\$1.63	\$180,987
TOTAL				\$3,494,168

Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
Buildings 251, 253, 257				
Add suspended ceiling	43000	Square Feet	\$4.06	\$174,580
Add lighting	43000	Square Feet	\$1.63	\$70,090
Add conductive flooring	43000	Square Feet	\$6.65	\$2,028,250
Add HVAC system	305000	Square Feet	\$6.00	\$1,044,000
Install new electrical distribution system	174000	Square Feet	\$5.00	\$870,000
Install 90 bathroom stalls	90	Bathroom Stalls	\$3,523.70	\$317,133
Upgrade/replace sprinklers	658900	Square Feet	\$2.01	\$1,324,389
Install compressed air (assembly)				
Air supply for pneumatic control system (including compressor, starter, alternator, piping, dryer, PRV station & filter)	3	Units	\$21,127.00	\$63,381
Pressure control and valves (15% of unit cost)				
2" Steel threaded pipe - Schedule 80	1,000	Linear Feet	\$17.45	\$17,450
3/8" Steel threaded pipe - Schedule 80	100	Linear Feet	\$9.85	\$985
Straight T fittings	50	Each	\$71.00	\$3,550
TOTAL				\$5,913,808
Site Improvements				
Construct link between buildings 251, 253, 255, 257	24000	Square Feet	\$37.00	\$888,000
Install voice and data cabling across site(assembly)				
Saw Cut Asphalt	7,000	Linear Feet	\$3.53	\$24,710
Remove Asphalt	7,000	Linear Feet	\$1.36	\$9,520
(pre-made assembly)				
Excavation/Trench				
Backfill & Load Spoil				
Compaction				
Remove Excess Soil				
Total Assembly	7,000	Linear Feet	\$1.20	\$8,400
LAN cable	7,000	Linear Feet	\$9.85	\$68,950
Backfill	7,000	Linear Feet	\$0.40	\$2,800
Compaction	7,000	Linear Feet	\$0.59	\$4,130
Asphalt Binder	7,000	Linear Feet	\$5.70	\$39,900
Asphalt Wearing	7,000	Linear Feet	\$6.15	\$43,050
Compact	7,000	Linear Feet	\$0.05	\$350
TOTAL				\$1,089,810
GRAND TOTAL				\$17,816,992

Miscellaneous**Street Lights - Condition**

The 460 high-pressure and mercury-vapor lights in this system are in Very Good condition. To determine the cost of improving the condition of the street lights at SADA, USACERL used the existing maintenance costs from the 1992 Red Book [4].

Table D49. Possible Repairs for Street Lights and Building Security to Improve Condition.

POSSIBLE REPAIRS FOR STREET LIGHTS AND BUILDING SECURITY TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>EXISTING 1992 COST</i>				\$6,400
<i>SUBTOTAL</i>				\$6,400
Inflation for 1993			5%	\$6,720
Inflation for 1994			5%	\$7,056
Contingency (of sub-total)			10%	\$706
Contingency (of sub-total)			30%	\$2,117
TOTAL with 10% contingency				\$7,762
TOTAL with 30% contingency				\$9,173
ROUNDED TO				\$8,000
ROUNDED TO				\$9,000

Street Lights - Improvements

Because of the high security requirements of the U.S. Army, there are currently more than enough street lights and building security lights on the depot. If for some reason the economic development will require upgrades in this system, USACERL did an estimate. This estimate assumes that the existing lights will be removed and new ones installed that will increase foot-candles by 25 percent.

Table D50. Possible Street Light and Security Improvements.

POSSIBLE STREET LIGHTS / SECURITY LIGHTS IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
<i>UPGRADE EXISTING LIGHT FIXTURES</i>				
Remove existing light fixtures	670	Each	\$100.00	\$67,000
Upgrade wiring				
(not included in overall electrical upgrade)	1	Lump Sum	\$50,000.00	\$50,000
<i>INSTALL NEW LIGHTS</i>				
High Pressure Sodium				
100 w.	10	Each	\$470.00	\$4,700
150 w.	10	Each	\$480.00	\$4,800
400 w.	20	Each	\$640.00	\$12,800
1000w.	30	Each	\$1,000.00	\$30,000
Street lights 400 w.	140	Each	\$1,000.00	\$140,000
Building mounted fixtures 150 w.	400	Each	\$460.00	\$184,000
Low Pressure Sodium				
180 w.	10	Each	\$920.00	\$9,200
Mercury Vapor				
250 w.	20	Each	\$470.00	\$9,400
400 w.	30	Each	\$530.00	\$15,900
1000 w.	10	Each	\$740.00	\$7,400
<i>SUBTOTAL</i>				
				\$535,200
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				
				\$591,931
Contingency (of sub-total)				
			10%	\$59,193
Contingency (of sub-total)				
			30%	\$177,579
TOTAL with 10% contingency				
				\$651,124
TOTAL with 30% contingency				
				\$769,511
ROUND TO				
				\$650,000
ROUND TO				
				\$770,000

Telephone - Condition

The telephone system is in Excellent condition, according to information from depot personnel. To determine the cost of improving the condition of the telephone system at SADA, USACERL used the existing maintenance costs obtained from depot personnel.

Table D51. Possible Repairs for Telephone to Improve Condition.

POSSIBLE REPAIRS FOR TELEPHONE TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
EXISTING COST FROM DEPOT				\$7,500
SUBTOTAL				\$7,500
Contingency (of sub-total)			10%	\$750
Contingency (of sub-total)			30%	\$2,250
TOTAL with 10% contingency				\$8,250
TOTAL with 30% contingency				\$9,750
ROUNDED TO				\$8,000
ROUNDED TO				\$10,000

Telephone - Improvements

USACERL anticipates that the current system is adequate for the proposed redevelopment. If, however, the redevelopment of the depot exceeds predicated values, the city should increase the number of telephone lines. We estimated that a worst-case scenario would be to double the current capacity of the telephone system at SADA. The new lines would be installed underground, and utility manholes would be added for maintenance.

Table D52. Possible Improvements of Telephone Systems.

TELEPHONE IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>INSTALL ADDITIONAL UNDERGROUND LINES</i>				
Saw Cut Asphalt 6" deep	52,000	Linear Foot	\$3.64	\$189,280
Remove Asphalt (26,000 lf x 3' w)	8,700	Square Yard	\$6.80	\$59,160
Pre-made assembly of:				
Excavate Trench (26,000 lf x 4' w x 8' d)				
Backfill				
Compact				
Remove Excess				
TOTAL FOR THIS ASSEMBLY	26,000	Linear Foot	\$12.85	\$334,100
Asphalt Binder	8,700	Square Yard	\$5.35	\$46,545
Asphalt Wearing	8,700	Square Yard	\$5.85	\$50,895
Compact 6" Lifts, 2 Passes	4,350	Cubic Yard	\$0.32	\$1,392
<i>INSTALL ADDITIONAL TELEPHONE LINE</i>				
Telephone Wire 26,000 lf	2,600	Hundred Linear Foot	\$61.50	\$159,900
<i>INSTALL ADDITIONAL UTILITY MANHOLES</i>				
Saw Cut Asphalt (10 lf x 4 x 100 ea)	4,000	Linear Foot	\$3.64	\$14,560
Remove Asphalt (10' w x 10' l x 100 ea)	1,100	Square Yard	\$6.80	\$7,480
Pre-made assembly of:				
Excavate (10' x 10' x 100 ea)				
Backfill				
Compact				
Remove Excess				
TOTAL FOR THIS ASSEMBLY	2,500	Linear Foot	\$12.85	\$32,125
Asphalt Binder	1,100	Square Yard	\$5.35	\$5,885
Asphalt Wearing	1,100	Square Yard	\$5.85	\$6,435
Compact 6" Lifts, 2 Passes	550	Cubic Yard	\$0.32	\$176
Manhole, precast 4'x6'x7'	100	each	770	\$77,000
<i>SUBTOTAL</i>				\$984,933
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$1,089,336
Contingency (of sub-total)			10%	\$108,934
Contingency (of sub-total)			30%	\$326,801
TOTAL with 10% Contingency				\$1,198,269
TOTAL with 30% Contingency				\$1,416,137
ROUNDED TO				\$1,200,000
ROUNDED TO				\$1,420,000

Landscaping - Condition

The landscaping on 111 acres of improved grounds and 374 acres of unimproved ground is in Excellent condition. Thus, the City will need only conventional grounds maintenance or common area maintenance to keep it at that level. Since the depot's landscape is in Excellent condition, USACERL assumed that the current amount of money budgeted will maintain the grounds in Excellent condition.

Table D53. Maintenance Costs for Landscaping.

CURRENT MAINTENANCE COSTS FOR LANDSCAPING				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
EXISTING 1992 COST				\$234,022
SUBTOTAL				\$234,022
Inflation for 1993			5%	\$245,723
Inflation for 1994			5%	\$258,009
Contingency (of sub-total)			10%	\$25,801
Contingency (of sub-total)			30%	\$77,403
TOTAL with 10% contingency				\$283,810
TOTAL with 30% contingency				\$335,412
ROUNDED TO				\$280,000
ROUNDED TO				\$340,000

Landscaping - Improvements

The redevelopment plan did not elaborate on exactly what the common area maintenance would be for the new tenants. The plan did briefly mention planting some 1,500 trees and shrubs to improve the landscaping. It did not mention planting additional grass or any other types of improvements. USACERL looked at several options of planting trees, shrubs, and lawns to improve the landscaping. Our estimated cost for landscape improvements includes the addition of 1,500 trees, as outlined in the Reuse Plan. To help with the landscaping, we also included the installation of approximately 5 acres of grass areas scattered throughout the depot. Prices of trees and grass can vary. For the purpose of this estimate, USACERL made the assumption that a standard tree is 14 foot tall and would be guyed in place, and that the grass would be seeded in lieu of using sod. To compensate for the large variance of costs for trees and grass, USACERL changed the contingency costs to fall between 10% and 100%.

Table D54. Possible Landscaping Improvements.

LANDSCAPING POSSIBLE IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>PLANTING TREES</i>				
Pre-made Assembly of:				
Standard 14 Foot tall tree				
Installing Guying Material				
Equipment Charge to plant tree				
Installation Labor to plant tree				
TOTAL FOR THIS ASSEMBLY	1,500	Each	\$250	\$375,000
<i>INSTALL ADDITIONAL GRASS AREAS</i>				
Install Top soil (5 acres 6 " deep)	4,100	Cubic Yards	\$19	\$76,260
Pre-made assembly of:				
Fine Grade, Lime, Fertilize & Seed				
Install hay mulch (5 acres)				
TOTAL FOR THIS ASSEMBLY	24,200	Square Yards	\$5.60	\$135,520
<i>SUBTOTAL</i>				\$586,780
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$648,979
Contingency (of sub-total)			10%	\$64,898
Contingency (of sub-total)			100%	\$648,979
TOTAL with 10% Contingency				\$713,877
TOTAL with 100% Contingency				\$1,297,957
ROUNDED TO				\$710,000
ROUNDED TO				\$1,300,000

Environmental Set-Aside - Condition

In the northwest part of the depot, poor drainage has created a habitat for the endangered fairy shrimp and burrowing owl. USACERL took great care in estimating the infrastructure improvement costs not to recommend anything that would disturb this area of the depot. USACERL assumed that the amount of money that the depot is currently spending on this area will help maintain it in Excellent condition.

Table D55. Possible Repairs for Environmental Set-Aside.

POSSIBLE REPAIRS FOR ENVIRONMENTAL SET ASIDE TO IMPROVE CONDITION				
Action	Quantity	Unit of Measure	Cost/unit	Total Cost
EXISTING 1992 COST				\$37,762
SUBTOTAL				\$37,762
Inflation for 1993			5%	\$39,650
Inflation for 1994			5%	\$41,633
Contingency (of sub-total)			10%	\$4,163
Contingency (of sub-total)			30%	\$12,490
TOTAL with 10% contingency				\$45,796
TOTAL with 30% contingency				\$54,122
ROUNDED TO				\$46,000
ROUNDED TO				\$54,000

Environmental Set Aside - Improvements

In the northwest part of the depot, poor drainage has become a habitat for the endangered fairy shrimp and burrowing owl. One possible approach to upgrading this land would be to protect the habitat from vandalism and help others learn more about the species that live there. A possible way to do this would be to construct a fence around the area for security, install walking paths, and reseed the area.

Table D56. Possible Upgrades for Environmental Set-Aside Area.

POSSIBLE LAND SET ASIDE IMPROVEMENTS				
Action	Quantity	Unit of Measure	Cost/Unit	Total Cost
<i>RESEED 2 ACRES</i>				
Pre-made assembly of:				
Fine Grade, Lime, Fertilize & Seed				
Install hay mulch (2 acre)				
Roll with hand roller				
TOTAL FOR THIS ASSEMBLY	9670	Square Yards	\$5.59	\$54,055
<i>INSTALL WALKING PATH</i>				
Walking path (600 lf x 4' w)	2400	Square feet	\$25.50	\$61,200
<i>INSTALL CHAIN LINK FENCE AROUND AREA</i>				
Fencing (600 lf x 2 + 150' w x 2, 6' - 0" high w / 3 strands of barbed wire, 9 GA. aluminum steel)	1500	Linear Feet	\$14.20	\$21,300
Corner posts	200	Each	\$101.00	\$20,200
Gate	4	Each	\$252.00	\$1,008
Bracing	200	Each	\$37.00	\$7,400
<i>SUBTOTAL</i>				\$165,163
City Cost Index Number			1.106	
<i>SUBTOTAL</i>				\$182,671
Contingency (of sub-total)			10%	\$18,267
Contingency (of sub-total)			30%	\$54,801
TOTAL with 10% Contingency				\$200,938
TOTAL with 30% Contingency				\$237,472
ROUNDED TO				\$200,000
ROUNDED TO				\$240,000

Appendix E: Extent of State and Local Investment and Level of Risk Incurred in the EDC

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Introduction

The objective of this appendix is to estimate the level of investment and the level of risk incurred by the State of California and the City of Sacramento in the Economic Development Conveyance (EDC) application for the Sacramento Army Depot Activity (SADA).

Approach

First, the investment and risk by the State of California was estimated in accordance with the State of California Franchise Tax Board "Guidelines For Enterprise Zone Tax Incentives" (FTB Pub. 1047, January 1994). The USACERL-developed Economic Impact Forecast System (EIFS) was used to predict net government revenues. Second, the investment and the risk of the City of Sacramento is evaluated by analyzing the worst-case scenario, as discussed in the paragraphs that follow.

The overall findings are summarized in Table E1.

Table E1. Summary of state and city investment requirements and risk exposure.

	Investment	Risk
State of California	\$33.2 million	\$0
City of Sacramento	\$29.4 million	\$10.5 million*

* Note: this figure assumes it would take 2 years to find a tenant for all space vacated in a default.

State of California

Investment Required. By declaring SADA an enterprise zone, the State of California forgoes future tax revenues from that area (see Attachment E1). Assuming that the enterprise zone is able to employ 1,000 qualifying workers the first year, with a 90 percent annual retention rate, the amount of tax incentives to Packard Bell during the first 12 years is estimated at most to be \$33.2 million (Table E2).

Cost Avoidance and Increase in Tax Revenues. For a worker to qualify for the enterprise zone tax incentive he or she must already be costing the State of California or the Federal government money. The worker must be receiving subsidies under the Federal Job Training Partnership Act (JTPA), registered in the Great Avenues for Independence (GAIN) Program, or certified by the Employment Development Department as eligible for the Federal Targeted Jobs Tax Credit (TJTC) Program. Therefore, for each dollar forfeited in tax revenues there is an associated cost avoidance for unemployment or training subsidies.

USACERL's estimate indicates that the State's cost avoidance is about the same magnitude as tax dollars forfeited. The net government revenues from creating 3,000 jobs in the Sacramento region is estimated with the EIFS model to be between \$1.3 million and \$1.6 million a year. These estimates are based on two Standard EIFS Model Forecasts—one assuming that 50 percent of the new jobs are filled by out-of-town people, the other assuming this percentage to be 33 (Attachment E2). These net revenues are for the state, the four surrounding counties, and the city of Sacramento. All things considered, the EDC's net tax revenue effect on the State of California would be negligible.

Level of Risk. The state risks nothing in forfeiting tax revenues within the enterprise zone since the tax is forfeited after the unemployment and training subsidies have been avoided. The worst-case scenario for the state would be if Packard Bell moves out of California altogether. In the SADA EDC the worst-case scenario is not expected to occur.

Table E1. California tax incentives to Packard Bell through state enterprise zone.

California Estate Tax Incentives to Packard From Enterprise Zone						
Assumptions:						
Packard Bell hires 1,000 qualifying workers.						
2,000 Hours per year						
Maximum Annual Salary Deduction Per Worker: 2,000 @ \$6.37 = \$12,740						
Maximum Credit Allowed on Qualified Wages Paid: 50% of 1st Year						
40% of 2nd Year						
30% of 3rd Year						
20% of 4th Year						
10% of 5th Year						
Tax Year:	Number of Workers in This Benefit Period					Tax Credit
	1st Period	2nd Period	3rd Period	4th Period	5th Period	
1995	1,000					\$6,370,000
1996	100	900				\$5,223,400
1997	100	90	810			\$4,191,460
1998	100	90	81	729		\$3,262,714
1999	100	90	81	73	656	\$2,426,970
2000	100	90	81	73	66	\$1,675,310
2001	100	90	81	73	66	\$1,675,310
2002	100	90	81	73	66	\$1,675,310
2003	100	90	81	73	66	\$1,675,310
2004	100	90	81	73	66	\$1,675,310
2005	100	90	81	73	66	\$1,675,310
2006	100	90	81	73	66	\$1,675,310
					Total	\$33,201,714

City of Sacramento

Investment Required. As reported on the EDC application, the City must invest \$17 million in building renovations, \$9 million in moving expenses, and \$3.4 million in off-site improvements. The total invested by the city is \$29.4 million.

Level of Risk. The worst-case scenario for the City is if Packard Bell defaults on the loans after moving has been completed, after all renovations have been done, after all off-site mitigation has been completed, and before any major portion of the loans have been repaid—in other words, if the tenant defaults at the end of the first year. In this scenario, the city would keep the property with the improvements and the off-site mitigation, and would have to find another tenant to fill the vacancy created by the default of the tenant. The cost to the city then would be \$5.25 million a year for each year the property is vacant (comprising lost rent, which equals the service on the tenant's debt). If the city took 2 years to find a tenant (which is equivalent to a 20 percent vacancy rate during a 10-year window), the loss would be \$10.5 million.

Attachment E1: Guidelines for Enterprise Zone Tax Incentives

State of California — Franchise Tax Board

FTB Pub. 1047

Guidelines For Enterprise Zone Tax Incentives**General Information**

Enterprise zones have been established in California to stimulate development in selected economically-depressed areas.

The Enterprise Zone Act provides five business-related tax incentives which are explained in this publication:

1. Credit for sales and use tax paid on certain machinery;
2. Credit for hiring qualified employees;
3. Business expense deduction for the cost of certain machinery;
4. Net operating loss carryover; and
5. Net interest deduction for lenders.

A sixth incentive is available only to **employees who work in a designated enterprise zone**. Employees may claim a tax credit to reduce the amount of their income tax on wages earned in an enterprise zone. See form FTB 9553, Enterprise Zone Employee Credit.

This guide briefly explains the five business-related tax incentives to help investors and business operators understand the potential financial impact of each provision and what must be done to take advantage of the tax incentives. Detailed information about the methods used to compute allowable tax savings is explained in form FTB 3805Z, Enterprise Zone and Program Area Business Booklet.

Enterprise zone tax incentives apply only to investments and business activities that are undertaken **after** an enterprise zone has received final designation. This requirement also applies to any expansion of the existing enterprise zone boundaries.

1 Hiring Credit

A qualified business may reduce tax by a percentage of wages paid to one or more qualified employees.

For an employer claiming this credit, a new employee is someone who is hired after the area is designated as an enterprise zone and is:

- receiving subsidized employment, training or services under the terms of the Federal Job Training Partnership Act (JTPA); or
- registered in the Greater Avenues for Independence (GAIN) Program; or
- certified by the Employment Development Department as eligible for the federal Targeted Jobs Tax Credit Program (TJTC).

Individuals who are participants in these qualifying programs should get Form DOC-EZ1, Enterprise Zone Hiring Credit voucher, from the agency that administers the TPA, GAIN, or TJTC program(s).

You may claim up to 50 percent of the qualified wages paid to a qualified employee as a credit against tax imposed on enterprise zone income. The credit is based on the lesser of the actual hourly wage paid or 150 percent of the minimum hourly wage established by the Industrial Welfare Commission.

The minimum hourly wage is currently \$4.25; 150% of \$4.25 is \$6.37. The maximum hourly wage on which this credit may be based is \$6.37.

The chart below shows the actual percentage of wages paid that may be claimed as a credit.

Period of Employment	Credit Allowed on Qualified Wages Paid
1st 12 months	50%
2nd 12 months	40%
3rd 12 months	30%
4th 12 months	20%
5th 12 months	10%
After 60 months	0%

Example 1: On January 1, 1994, you hired a qualified employee who worked the entire year at your enterprise zone business. During the year, the employee earned \$4.25 an hour and worked 2,000 hours. Your hiring credit is computed as follows:

$$\$4.25 \times 2,000 \text{ hours} \times 50\% = \$4,250$$

Example 2: On January 1, 1994, you hired a qualified employee who worked the entire year at your enterprise zone business. During the year, the employee earned \$6.50 an hour and worked 2,000 hours. Your hiring credit is computed as follows:

$$\$6.37 \text{ (not } \$6.50) \times 2,000 \text{ hrs} \times 50\% = \$6,370$$

Limitations

- The hiring of a qualified employee must take place **after** an area has been officially designated an enterprise zone by the California Trade and Commerce Agency.
- At least 90 percent of the qualified employee's work must be directly related to a trade or business activity located in an enterprise zone, and at least 50 percent of the employee's work must be performed inside the boundaries of an enterprise zone;
- The business expense deduction for wages must be reduced by the amount of the hiring credit;
- The credit must be reduced by any federal or state jobs credits claimed;
- The amount of the credit available for wages paid to **all** qualified employees may not exceed the amount of tax that would be imposed if the income related to business activity in an enterprise zone was your only income;

- If the amount of the credit for employing qualified persons is greater than the tax on enterprise zone income in any year, the excess credit may be carried over to future years.
- The credit cannot reduce the corporate minimum franchise tax, built-in gains tax and excess net passive income tax. However, the credit can reduce regular tax below tentative minimum tax.

Recapture of the credit: If this credit is allowed for wages paid to a qualified employee who is terminated within 270 days after the date of employment, an additional tax, equal to the credit allowed, will be due on the return filed for the year during which the employee was terminated. This tax will not be added if the termination was:

- voluntary on the part of the employee; or
- caused by the employee becoming disabled; or
- due to employee misconduct; or
- due to a substantial reduction in business (individual taxpayers only); or
- carried out so that other qualified individuals could be hired, creating an increase in the number of qualified employees and their hours of employment.

Record Keeping

If you hire qualified employees and claim this credit on your tax return, keep records including:

- copies of Form DOC-EZ1, Enterprise Zone Hiring Credit Voucher, for each qualified person hired;
- records of any other federal or state subsidies you may have received for hiring qualified individuals; and
- an employment history for each qualified employee showing the dates of employment, wages paid, the duties performed, and the location of employment.

2 Sales and Use Tax Credit

Enterprise zone businesses may reduce taxes by the amount of sales or use tax paid on certain machinery purchased for exclusive use in an enterprise zone. In any year, individuals may claim a credit equal to the tax paid or incurred on the first \$1 million of machinery cost and corporations may claim a credit equal to the tax paid or incurred on the first \$20 million of machinery cost.

To qualify for the credit, the machinery and machinery parts must be used to:

- manufacture, process, combine or otherwise fabricate a product;
- produce renewable energy resources; or
- control air or water pollution.

The following conditions apply when you claim this credit:

- You must use the machinery and machinery parts exclusively within the boundaries of an enterprise zone.
- The amount of credit in any single year, is limited to the tax that would be due if the income related to business activity in the enterprise zone represented all of your net income.
- You may not increase the basis of property by the amount of the sales or use tax paid.
- If you purchase out-of-state machinery and claim the credit for the use tax paid, you will be allowed the credit only if machinery of a comparable quality and price was not available for purchase in California when you needed it.
- If the amount of the credit is greater than the tax on enterprise zone income in any year, the excess credit may be carried over to future years.
- The credit cannot reduce the corporate minimum franchise tax, built-in gains tax or excess net passive income tax. However, the credit may reduce regular tax below tentative minimum tax.

Example: You spend \$50,000 to purchase machinery used to manufacture wooden toys. The sales tax paid for the purchase is \$3,000. You may reduce the amount of your tax imposed on enterprise zone income by up to \$3,000. If you cannot claim the full \$3,000 in a single year, you may carry over the remaining amount to reduce next year's tax imposed on enterprise zone income.

Record Keeping

To support the sales and use tax credit claimed on your tax return, you must keep records that identify or describe the property purchased, the amount of sales or use tax paid on its purchase, and the location where it is used. If you purchase out-of-state machinery, you should be able to substantiate attempts to purchase comparable items within California.

Credits Carryover

Taxpayers who claim both credit available to enterprise zone businesses — the sales and use tax credit and the credit for hiring qualified employees — may not claim a total credit amount which exceeds the tax imposed on enterprise zone income in any single year. However, credits which exceed the tax imposed on enterprise zone income may be carried over to offset tax imposed on enterprise zone income in subsequent years.

3 Business Expense Deduction

The cost of qualified property purchased for exclusive use in an enterprise zone may be deducted as a business expense in the first year it is placed in service.

The type of property which qualifies for this special treatment is tangible personal property (not real estate) which is used for business purposes and is eligible for depreciation. This includes most equipment and furnishings purchased for exclusive use in an enterprise zone, but not office supplies or other small items which are normally ineligible for depreciation.

The maximum business expense deduction depends on when the asset was placed in service and when the enterprise zone received final designation.

If the property was placed in service:

Months After Designation	Maximum Deduction
0 to 24	\$5,000
25 to 48	7,500
48+	10,000

The election to treat the cost of qualified property as a business expense must be made in the year the property is first placed in service. However, this election is not allowed if the property was:

- transferred between members of an affiliated group; or
- acquired as a gift or inherited;
- traded for other property; or
- received from a personal or business relation as defined in Section 267 of the Internal Revenue Code; or
- described in Section 168(f) of the Internal Revenue Code.

Depreciation

The basis (cost for depreciation purposes) of the property must be reduced by the amount allowed as a deduction.

- Depreciation of the property in excess of the amount deducted may be claimed using any method of depreciation normally allowed.
- The deduction allowed by Section 179 of the Internal Revenue Code, relating to an election to expense certain depreciable business assets, does not apply.
- Corporations may not claim additional first-year depreciation for these assets.
- The full amount of the deduction must be included in income if the property is no longer used in an enterprise zone during the first two years after the property was first placed in service.

Example: Three months after the location where you do business has been designated an enterprise zone, you purchase a baking oven which costs \$20,000. You depreciate the oven over a ten-year period using the straight line method. The enterprise zone business expense deduction you may claim is \$5,000. You may also claim the normal \$125 of depreciation which is allowed for each month the oven was in service during the year

$$(\$20,000 - \$5,000 \div 120 \text{ months} = \$125)$$

Record Keeping

You should maintain information which will allow you to substantiate your claim for the first-year business expense deduction. The records for each item should show:

- The identity and purchase price;
- The date on which the property was first placed in service in an enterprise zone; and
- The location where the property is used.

4 Net Operating Loss Carryover

Net operating losses (NOLs) of individuals or corporations doing business in an enterprise zone may be carried over to future years to reduce the amount of taxable enterprise zone income for those years. The NOL carryover is determined by computing the business loss which results strictly from business activity in an enterprise zone.

Election

If you qualify to claim more than one type of NOL, you must make an irrevocable election as to which type of NOL you claim. This election must be made on the original return for the year of the loss and be filed by the original or extended due date.

For more information regarding the other types of NOL's, see FTB 3805V, Net Operating Loss (NOL) Computation and NOL and Disaster Loss Limitations — Individuals, Estates and Trusts or FTB 3805Q, Net Operating Loss (NOL) Computation and NOL and Disaster Loss Limitations — Corporations.

Limitations

- Enterprise Zone NOL carryovers are allowed only for losses occurring in a year beginning after the date the area is designated as an enterprise zone;
- Financial institutions using bad debt reserve methods may carry forward the enterprise zone NOL for only five years;
- An Enterprise Zone NOL may not be applied to years prior to the year in which the Enterprise Zone NOL occurred (no carrybacks);
- Part-year residents of California, see form FTB 3805Z, Enterprise Zone and Program Area Business Booklet.

Example: In your first year of business in an enterprise zone, the activities in the enterprise zone show a \$5,000 net operating loss that is the exclusive result of your enterprise zone activity. Because of the loss, you owe no tax on enterprise zone income. In the second year, your business shows a profit of \$8,000. You may carry over the \$5,000 first year loss to reduce your taxable enterprise zone income for the second year.

Record Keeping

To support your claim of an NOL carryover on your California tax return, you should maintain:

- records showing the status date your business activities began in an enterprise zone;
- accounting records showing that the loss was the result of business activity in an enterprise zone; and
- financial data indicating that the income offset by the carryover is the product of business activity in an enterprise zone.

5 Net Interest Deduction for Lenders

A deduction from income is allowed on the amount of "net interest" earned on loans made to a trade or business located in an enterprise zone.

Net interest means the full amount of the interest, less any direct expenses incurred in making the loan. Some examples of direct expenses are: commissions paid to the loan representative and the cost of money incurred in funding the loan.

Types of loans that qualify for this deduction include business loans, mortgages and loans from non-commercial sources.

Requirements

- The loan is made to a trade or business located solely within an enterprise zone;
- The money loaned is used strictly for the business activities within the enterprise zone;
- The lender has no equity or other ownership interest in the trade or business; and
- The loan was made after the enterprise zone was designated.

Example: You loan \$5,000 to an enterprise zone business that meets the requirements listed above. You earn \$550 of interest and incur \$300 of expenses directly related to the loan. You may deduct \$250 (\$550-300) of net interest from your taxable income.

Record Keeping

To support the "net interest" deduction on your tax return, you should maintain records for each enterprise zone loan showing:

- the identity and location of the trade or business to which you have loaned the money;
- the amount of your loan, the amount of interest earned, and the amount of any direct expenses associated with the loan; and
- use of the loan (i.e., purchase invoices).

Geographic Boundaries

Any information about geographic boundaries of an enterprise zone, dates of designation, the Enterprise Zone Hiring Credit Voucher or other information not related to the tax incentives is available from:

California Trade and Commerce Agency
Attention: Enterprise Zone Programs
801 K Street, Suite 1700
Sacramento, CA 95814
Telephone: (916) 324-8211

Enterprise Zone Locations and Designation Dates

Enterprise zone tax incentives apply only to business activities and investments that are undertaken after an enterprise zone has received final designation.

In areas that have been brought into an enterprise zone through expansion of the original zone, enterprise zone tax incentives apply only to business activities and investments undertaken after the date of expansion.

Altadena/Pasadena	04/10/92
Calexico	10/15/86
Coachella Valley	11/11/91
Delano	12/7/91
Eureka	10/15/86
Fresno	10/15/86
Kings County	06/22/93
Long Beach	01/08/92
Los Angeles - Central City	10/15/86
Los Angeles - Picoima	10/15/86
Merced/Airwater	12/17/91
Oakland	09/28/93
Oroville	11/06/91
Porterville	10/15/86
Richmond	03/02/92
San Bernardino/Riverside (Agua Mansa)	10/15/86
San Diego - Barrio Logan	10/15/86
San Diego-Olay Mesa/ San Ysidro	01/28/92
San Francisco	05/26/92
San Jose	12/31/88
Santa Ana	06/08/92
Shasta Metro	11/06/91
Shasta Valley	06/22/93
Stockton	06/22/93
Yuba City/Marysville	10/15/86

Tax Incentives Questions

If you have questions about the California state tax incentives available to lenders or to businesses operating in an enterprise zone, please call the toll-free number listed below:

TELEPHONE ASSISTANCE

Our regular toll-free telephone service is available from 7:00 a.m. until 8:00 p.m. Monday through Friday from the first working day in January through April 15. The best times to call are between 7:00 and 10:00 in the morning and between 6:00 and 8:00 in the evening. Service is also available from 8:00 a.m. through 5:00 p.m. on the two Saturdays prior to April 15. After April 15, service is available Monday through Friday, between 8:00 a.m. and 5:00 p.m.

From within the
United States, call 1-800-852-5711
From outside the United
States, call (not toll-free) . . . 1-916-854-6500
For hearing impaired
with TDD, call 1-800-822-6268

Attachment E2: Two Standard EIFS Model Forecast Runs**Run No.1: Assumes 50 percent of the new jobs are filled from out-of-town.**

Functional area: 1 Project name: Sacramento 50%
 Deflators: (EIFS default deflators were used)
 (price deflator for baseline year (ex b.v.)): 100.00
 (price deflator for output (ex b.v.)): 126.30
 (price deflator for baseline year (BV)): 100.00
 (price deflator for output (BV)): 115.70
 Change in expenditures for local services and supplies: \$57,600,000
 (price deflator): 115.70
 Change in civilian employment: 3000.00
 Average income of affected civilian personnel: \$24,000
 (price deflator): 126.30
 Percent of affected civilian personnel expected to relocate: 50.0%
 Change in military employment: 0.00
 Average income of affected military personnel: \$0
 (price deflator): 126.30
 Percent of affected military living on-post: 0.00%

***** STANDARD EIFS MODEL FORECAST FOR Sacramento 50% *****

Export income multiplier:	2.8715	
Change in local		
Sales volume	Direct:	\$110,630,000
	Induced:	\$207,039,000
	Total:	\$317,669,000 (1.118%)
Employment	Direct:	938
	Total:	5,693 (0.789%)
Income	Direct:	\$17,922,000
	Total (place of work):	\$123,461,000
	Total (place of residence):	\$123,461,000 (0.447%)
Local population		3,643 (0.270%)
Local off-base population		3,643
Number of school children		600
Demand for housing	Rental:	616
	Owner occupied:	884
Government expenditures.....		\$15,028,000
Government revenues		\$16,348,000
Net Government revenues		\$1,320,000
Civilian employees expected to relocate:		1,500
Military employees expected to relocate:		0

Run No. 2: Assumes 33 percent of the new jobs are filled from out of town.

County list:

FIPS# County

= =====

1 06017 el dorado, ca
2 06061 placer, ca
3 06067 sacramento, ca
4 06113 yolo, ca

Functional area: 1 Project name: 33

Deflators: (EIFS default deflators were used)

(price deflator for baseline year (ex b.v.)): 100.00

(price deflator for output (ex b.v.)): 126.30

(price deflator for baseline year (BV)): 100.00

(price deflator for output (BV)): 115.70

Change in expenditures for local services and supplies: \$57,600,000

(price deflator): 115.70

Change in civilian employment: 3000.00

Average income of affected civilian personnel: \$24,000

(price deflator): 126.30

Percent of affected civilian personnel expected to relocate: 33.0%

Change in military employment: 0.00

Average income of affected military personnel: \$0

(price deflator): 126.30

Percent of affected military living on-post: 0.00%

***** STANDARD EIFS MODEL FORECAST FOR 33 *****

Export income multiplier:	2.8715	
Change in local		
Sales volume	Direct:	\$110,630,000
	Induced:	\$207,039,000
	Total:	\$317,669,000 (1.118%)
Employment	Direct:	938
	Total:	5,693 (0.789%)
Income	Direct:	\$17,922,000
	Total (place of work):	\$123,461,000
	Total (place of residence):	\$123,461,000 (0.447%)
Local population		2,404 (0.178%)
Local off-base population		2,404
Number of school children		396
Demand for housing	Rental:	406
	Owner occupied:	584
Government expenditures.....		\$13,034,000
Government revenues		\$14,694,000
Net Government revenues		\$1,660,000
Civilian employees expected to relocate:		990
Military employees expected to relocate:		0

Appendix F: Local and Regional Real Estate Market Conditions

Prepared by:

Charles G. Schroeder

USACERL, ATTN: CECER-FFK

P.O. Box 9005

Champaign, IL 61826-9005

(217) 373-6726

Methodology

Local and regional industrial and residential real estate market data were gathered and compared to real estate market information given in the City of Sacramento's Revised Economic Development Conveyance (EDC) Application and Reuse Plan for Sacramento Army Depot. Real estate market data can be obtained from local Board of Realtors multiple listing service, real estate agents, mortgage brokers, assessment officers, county courthouse records, various Department of Defense studies already conducted in relation to base realignment and closure actions (BRAC), and other sources. Independently collected data are used, in part, to confirm or dispute claims made in the EDC application and reuse plan related to real estate market conditions, impacts due to base closure, and potential market activity expected from an economic development conveyance.

Background

The Base Realignment and Closure Act of 1990 (BRAC II), commonly referred to as BRAC '91, was ratified by February 1990, placing Sacramento Army Depot Activity (SADA) on the base closure list. The Act stipulated that SADA must be closed by July 1997. The closure of SADA is ahead of schedule, having ceased its maintenance mission in April 1994.⁹

SADA is located approximately seven miles southeast of downtown Sacramento. The Depot occupies 485 acres of which 259 acres are developed. The property is located entirely within the limits of the City of Sacramento in the Power Inn/Florin-Perkins industrial area. The site has 76 permanent buildings with approximately 2,942,000 square feet of available industrial, warehouse and office space. The land uses surrounding SADA are mainly industrial, with commercial areas,

⁹Reuse Plan for Sacramento Army Depot, City of Sacramento, 20 June 1994, p1-1.

residential neighborhoods and vacant land.¹⁰ A map of SADA and the general vicinity is shown as Figure F1. SADA is bounded north by Fruitridge Road, east by Florin Perkins Road, south by Elder Creek Road and west by the Southern Pacific Railroad. The dashed line on the Figure F1 map indicates the approximate SADA boundaries.

Eight large warehouse structures on the site contain 263,000 square feet each, or a total of 2,104,000 square feet. This square footage is 71.5 percent of the total enclosed building area at the Army Depot (2,942,933 square feet). These buildings, consequently, represent the greatest potential value at the site. They are, however, severely obsolete. Their floor-to-ceiling heights are 30-35 percent lower than modern standards, lighting is inferior, and sprinkler systems are inadequate. Thus, while there is a potential user market for these structures, that market represents a small portion of the overall market for industrial warehouse space.¹¹

The following description of the current local and regional real estate market conditions was given in a memorandum dated 30 November 1994 for CERE-C from CESP-K-RE-MC:

The property has been zoned as heavy industrial. A quick review of the market reveals numerous industrial properties are available in the Sacramento area, and particularly in the vicinity of the installation. SADA facilities do not compare favorably with other industrial properties in the area. Most available industrial space has been built to current code requirements, meets seismic requirements, has higher ceiling clearances, does not have interior support

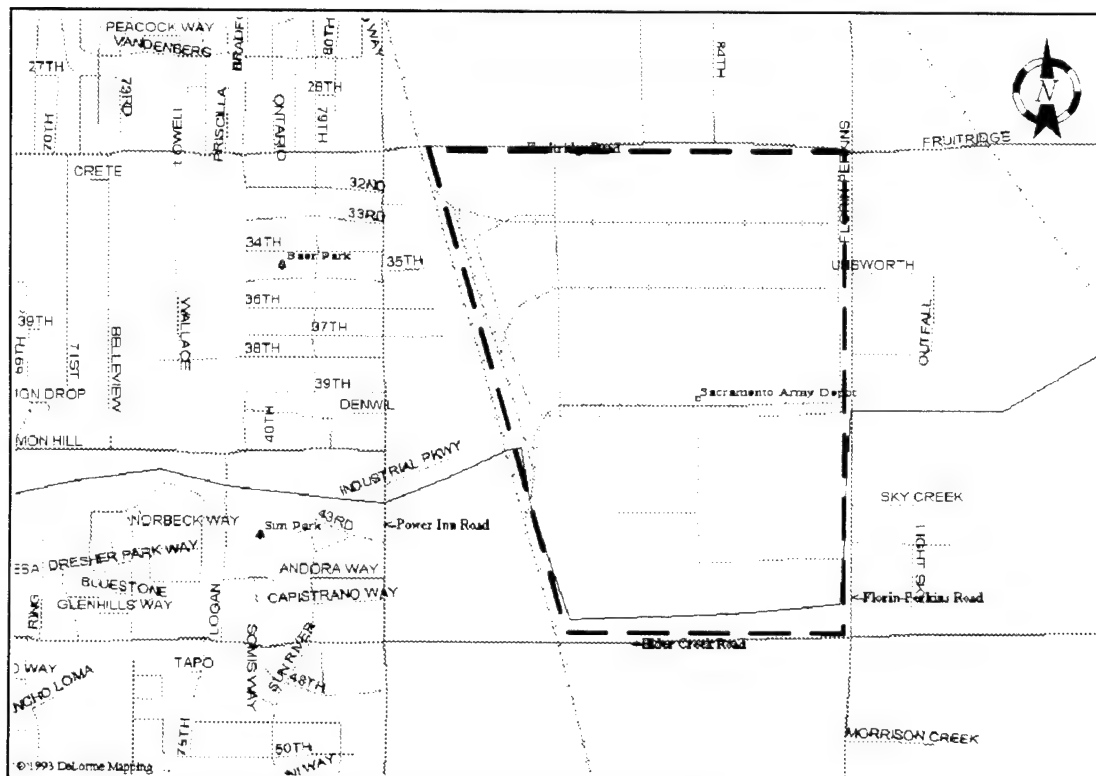


Figure F1. Sacramento Army Depot Activity and General Vicinity.

¹⁰ Reuse Plan for Sacramento Army Depot, City of Sacramento, 20 June 1994, p1-1,1-3.

¹¹ Reuse Plan for Sacramento Army Depot, City of Sacramento, 20 June 1994, p1-7.

columns, and has greater truck access. Current air emission restrictions for the Sacramento area further limit proposed uses for industrial property.¹²

The following information has also been documented:

- The Sacramento Army Depot qualifies as a blighted area under the California Community Redevelopment Law.
- Buildings at the Depot average 50 years old. They are uniformly deficient in terms of compliance with modern fire safety standards, Americans with Disability requirements and current municipal building code. The buildings are severely obsolete.
- Surrounding properties also qualify as blighted. Proctor & Gamble closed a plant last year across the street from the Army Depot, resulting in a loss of 700 jobs. Lease rates have declined and still vacancy rates are higher than the rates in other industrial areas. Construction and business activity within the surrounding area has not kept pace with citywide levels.¹³

SADA's primary competitive industrial market area is considered to be the Power Inn area.¹⁴ The Power Inn area is the oldest, largest and most established industrial area in the Sacramento Valley.¹⁵ The large region outlined by the dashed line in Figure F2 represents the Power Inn industrial market area, as defined by CB Commercial, Inc..¹⁶ As shown on the map, the Power Inn area is roughly bounded by Highway 99 on the west, Highways 50 and 16 as well as Mather Boulevard and Douglas Road on the north, and Grant Line Road to the east and southeast to its intersection with Highway 99. Note the area SADA occupies is marked in black on the map.

¹² *Sacramento Army Depot Activity (SADA), CA; Recommendations on the City of Sacramento's Economic Development Conveyance Applications*, Marvin D. Fisher (CESPK-RE-MC), 30 November 1994, p3.

¹³ *Revised Economic Development Conveyance Application - Sacramento Army Depot*, City of Sacramento, 10 November 1994, p2.

¹⁴ *Reuse Plan for Sacramento Army Depot*, City of Sacramento, 20 June 1994, p5-3.

¹⁵ *Sacramento 1993 Industrial Market Summary*, Iliff, Thorn & Company, p14.

¹⁶ Reference CB Commercial's Industrial Areas map. Note that other real estate sources may vary slightly in their definition of the Power Inn area, accounting for discrepancies in reported statistics from one source to the next.

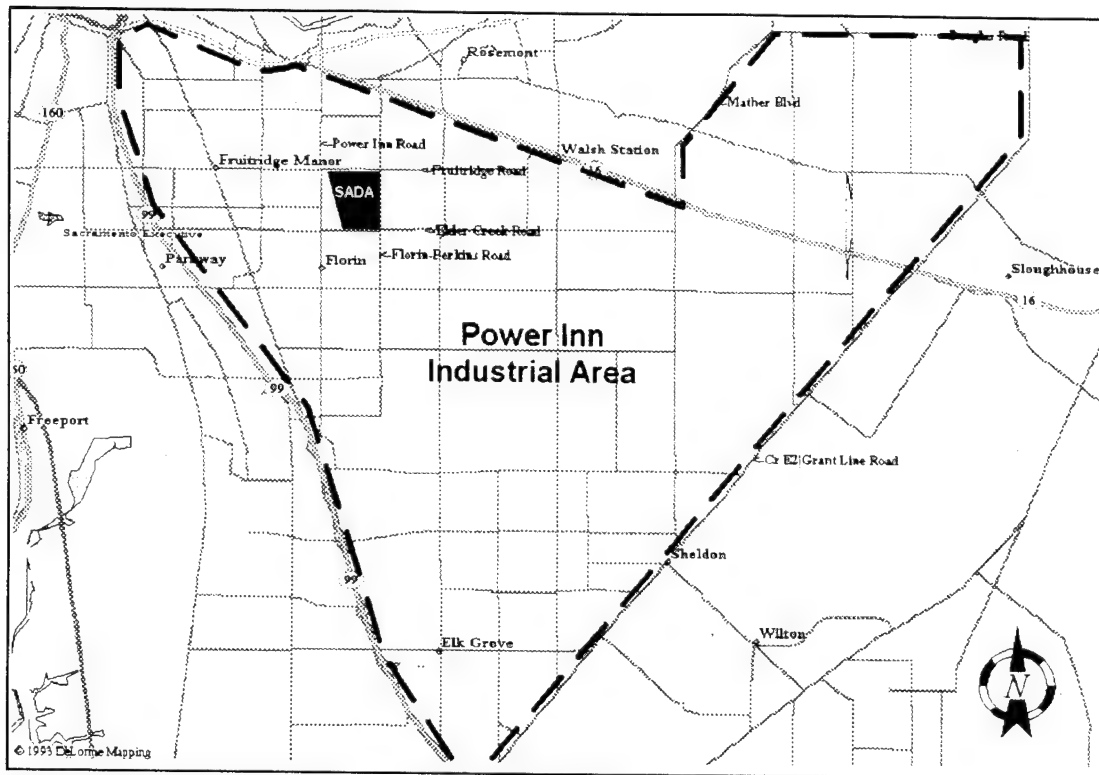


Figure F2. SADA Within Power Inn Industrial Market Area.

Residential Market Analysis

Throughout the post World War II era, the California economy sustained virtually unimpeded growth for nearly 45 years. However, beginning around 1990 this economic expansion ended as evidenced by unemployment rates that exceeded national averages and declines in housing values and real estate market activity in many areas. The Sacramento region economy was no exception.¹⁷ In Sacramento County, the number of homes sold began to fall after 1990 and the average sale price per square foot for single-family homes began to decline after 1991. A chart illustrating the number of new and resale homes sold in Sacramento County for years 1989 through 1994 is shown in Figure F3.¹⁸

A chart showing the average sale price per square foot of all homes sold in Sacramento County for years 1980 through 1994 is shown in Figure F4.¹⁹

¹⁷ *Reuse Plan for Sacramento Army Depot*, City of Sacramento, 20 June 1994, p5-1.

¹⁸ TRW REDI Property Data, 5 January 1995 (1994 data is through October).

¹⁹ TRW REDI Property Data, 5 January 1995 (1994 data is through October).

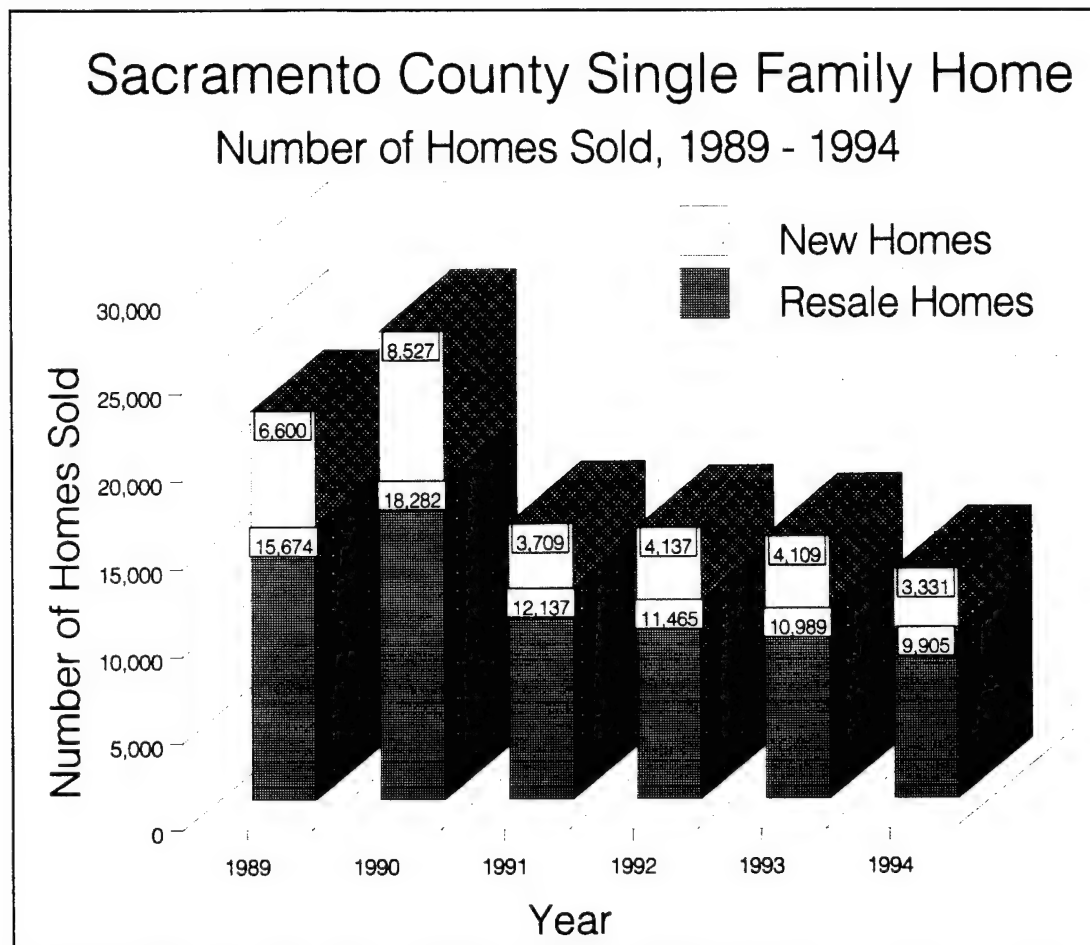


Figure F3. Number of Homes Sold - Sacramento County Homes.

Since January 1991, there has been an unseasonal, declining trend in the median price and a seasonal, declining trend in the total listing inventory for single-family detached homes resold in Sacramento County. A chart comparing the median price to total listing inventory is shown in Figure F5.²⁰

It is unclear what degree of decline in Sacramento's residential real estate market over the last 4 years can be attributed to Department of Defense (DoD) base closures of SADA and Mather Air Force Base (AFB) versus the general economic decline experienced throughout the state. SADA employed approximately 3,540 civilians while Mather AFB employed roughly 1,800 civilians and 4,500 military personnel. It is reasonable to conclude that a 13.5 percent unemployment rate in South Sacramento, in part, reflects an adverse impact of these base closures.²¹

²⁰Based on Multiple Listing Service data compiled by SAR Communications Department.

²¹*Sacramento Army Depot Activity (SADA), CA; Recommendations on the City of Sacramento's Economic Development Conveyance Applications*, Marvin D. Fisher (CESPK-RE-MC), 30 November 1994, p2.

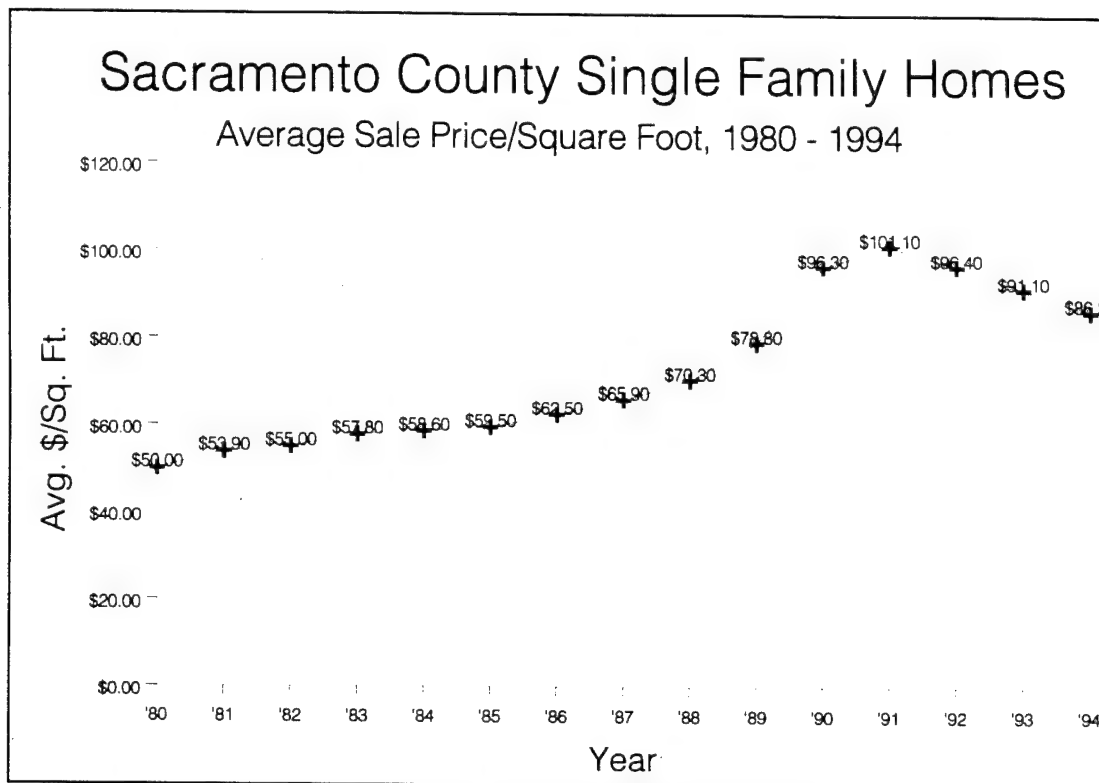


Figure F4. Average Sale Price/Square Foot - Sacramento County Homes.

The economic development conveyance of SADA to the City of Sacramento will enable the city to lease much of the site to Packard Bell Electronics. The City of Sacramento's *Revised Economic Development Conveyance Application for Sacramento Army Depot* indicates that Packard Bell Electronics projects to employ approximately 3,000 persons with an annual payroll of \$60 million to \$80 million, or with average annual wages from \$20,000 to \$26,667. An estimated 1,200 to 1,300 of these 3,000 jobs will be filled by Packard Bell Electronics employees that relocate from the Los Angeles area. Approximately 750 to 1,250 of these jobs are expected to be permanent position, entry level jobs that will first be offered to former SADA employees, residents of nearby neighborhoods and residents of other high-density unemployment areas in Sacramento County.

Compared to the projected earnings of Packard Bell Electronics employees, former SADA military and civilian employees reportedly earned higher average annual wages of \$27,500 and \$29,000 respectively,²² and the vast majority of these employees did not live in the immediate vicinity of SADA. The main residential neighborhood near SADA is located west of Power Inn Road. The values of homes in this area are generally well below the median value of homes in Sacramento county. Since Packard Bell Electronics has targeted people from nearby neighborhoods for entry-level positions and since it appears that nearby neighborhoods have a number of people that are candidates for such positions, it is likely that, in the immediate vicinity of SADA, residential real

²² *Sacramento Army Depot Reuse & Disposal Final EIS*, Appendix D, October 1994.

estate market activity will increase and residential real estate improvements will be made as a result of the economic development conveyance of SADA.

Industrial Market Analysis

The Reuse Plan for Sacramento Army Depot presents a detailed industrial market analysis, citing many relevant market statistics supported by quantitative data.²³ A technical review of this analysis revealed no discrepancies while much of the data presented was confirmed.

Independent data collection indicated that recently the Sacramento industrial market has experienced moderate growth and relative stability compared to other U.S. industrial markets. It has been projected that the majority of lease transactions will be in the size range of less than 10,000 square feet. A growing number of smaller transactions indicates a trend towards smaller tenants entering the Sacramento industrial market for its economic value and the area's quality of life. These smaller tenants are important to the market because they provide a broad base, greater

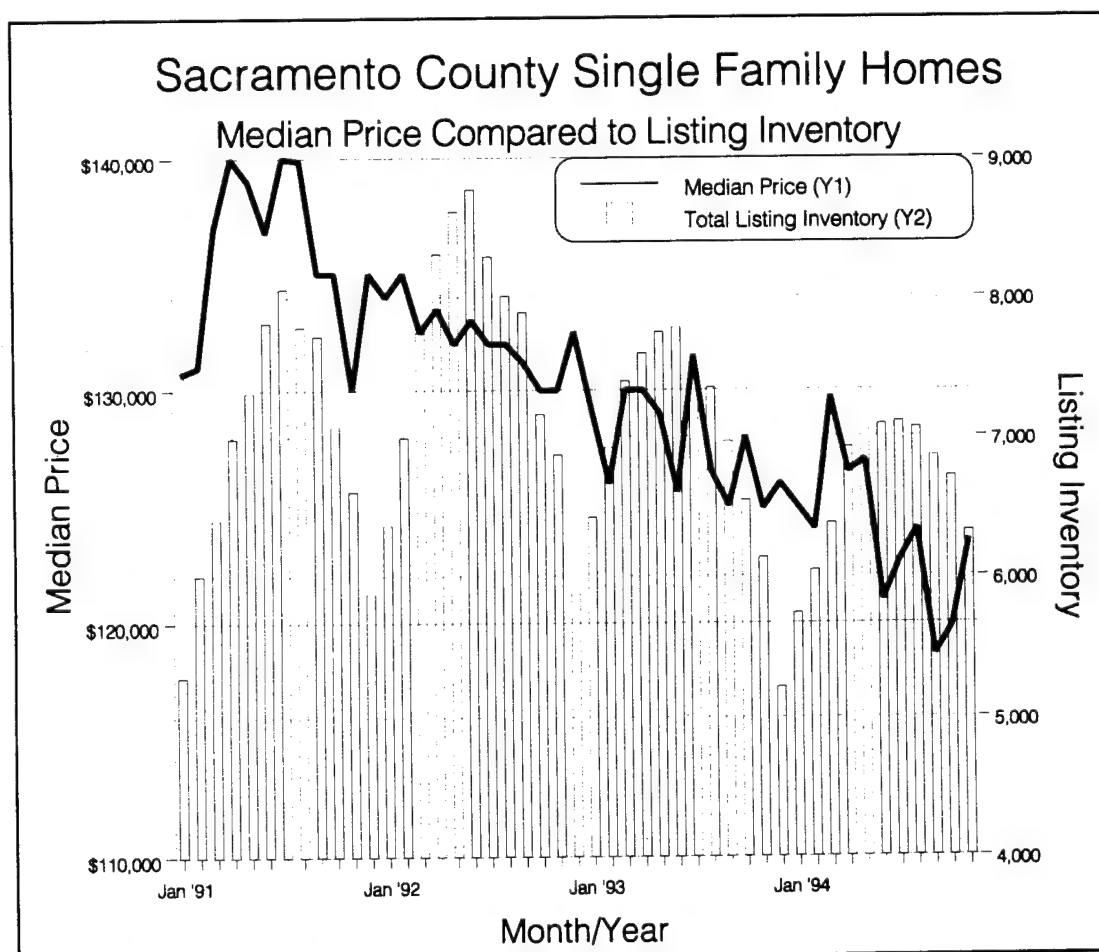


Figure F5. Median Price vs. Listing Inventory - Sacramento County Homes.

²³ Reuse Plan for Sacramento Army Depot, City of Sacramento, 20 June 1994, p5-1 to 5-14.

diversity and stimulate competition in the market. Smaller firms also absorb spaces that are carved up by larger tenants and, consequently, difficult to lease. Though the smaller tenants are desirable to the market, the most significant form of expansion comes from the larger tenants.²⁴ As a result, the conveyance of SADA to the City of Sacramento, that will enable the City to lease the majority of the site to Packard Bell Electronics, is expected to spur economic development much more quickly and greater than would be realized if SADA were absorbed in parcels over a long period of time.

During a site visit to SADA on 21–22 December 1994, building inspections were conducted on the base. For comparison, a visual survey was made of existing industrial facilities available for lease in the immediate vicinity of SADA, including several large industrial facilities under new construction. It was immediately obvious that SADA is located in a highly competitive industrial market. Many large modern warehouse facilities are located near SADA with available lease space. For confirmation, Table F1 shows the 1994 Third Quarter Industrial Vacancy figures for the Sacramento Area.²⁵

Table F1 clearly shows that the Power Inn Area is a large market, having the second largest number of industrial buildings (628) and total net rentable space (18,783,242 square feet). Table F1 also shows that the Power Inn Area has the *most* vacant rentable industrial space (2,257,964 square feet) with the second largest vacancy percentage (12.0 percent). One large facility worth noting just outside SADA is the Safeway Stores Distribution Center on Florin-Perkins Road. The facility has 452,000 square feet of modern warehouse space, including 130,000 square feet of cooler and freezer space and 304,000 square feet of gravel yard. Safeway relocated their operations at this distribution center to Tracy, CA, in early 1993 and the facility has been vacant and for lease since. This facility is currently advertised for lease at \$0.175 per square foot on a triple net basis. Another industrial facility near SADA at 3900 Florin Perkins Road, known as the *Old Libby Can Plant*, has 76,000 square feet of industrial space. This facility was recently leased for \$0.12 per square foot on a triple net basis. These facts illustrate the market competitiveness and that area rental rates are dependent on age, size and functional utility of the property.

With a large amount of modern industrial space available for lease at competitive prices, and due to the many constraints on commercial reuse (including inadequate clear heights in the warehouse, inadequate truck maneuvering space between the warehouses, plumbing and electrical code violations, and noncompliance with requirements of the Americans with Disabilities Act), it appears that conveyance of SADA to the City of Sacramento for primary reuse by Packard Bell Electronics is more desirable than the risk alternative presented in the City of Sacramento's *Reuse Plan for Sacramento Army Depot*. In the plan, the City had anticipated leasing approximately 115,000 square feet of space per year over 30 years in the absence of a single, large tenant.

²⁴ *Sacramento 1993 Industrial Market Summary*, Iliff, Thorn & Company, p5.

²⁵ Data from 1994 *Third Quarter Industrial Vacancy & Gross Absorption* report, CB Commercial Real Estate Group, Inc., Rev. 14 November 1994.

Table F1. Sacramento Area 1994 Third Quarter Industrial Vacancy.

Area Description	Number of Buildings	Overall Total Net Rentable	Overall Vacant Rentable	Overall Vacant (%)	1993 Overall Year-end Vacant (%)
Natomas/Northgate	213	7,790,839	870,821	11.2	15.5
Richards Boulevard	130	5,948,884	736,773	12.4	10.7
Downtown/Midtown	166	4,812,872	257,637	5.4	3.7
East Sacramento	61	1,114,650	17,600	1.6	1.4
West Sacramento	401	13,422,469	948,032	7.1	8.6
South Sacramento	206	4,641,971	261,811	5.6	7.1
Elk Grove/Laguna	68	2,149,612	167,750	7.8	2.8
Power Inn Area	628	18,783,242	2,257,964	12.0	14.6
Northeast Sacramento	348	6,516,405	651,556	10.0	10.1
Rancho Cordova/HW	646	18,970,529	1,981,821	10.4	10.5
McClellan/I-80	311	7,697,403	571,895	7.4	9.5
Roseville/Rocklin	244	9,484,880	247,166	2.6	9.6
Davis	34	1,503,109	42,500	2.8	5.9
Woodland	202	9,382,183	310,098	3.3	5.6
Folsom	31	1,343,024	79,000	5.9	0.0
El Dorado	80	989,532	45,828	4.6	3.1
TOTAL	3,769	114,551,604	9,448,252	8.2	9.8

Appendix G: Incorporation of Other Federal Agency Interests and Concerns, and Applicability of, and Conflicts With Other Federal Property Disposal Authorities

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Background

Three criteria are considered here: (1) whether the application incorporates other Federal agency interests and concerns; (2) whether other Federal property disposal authorities (and, it might be assumed, conveyance requests for these properties via those authorities) are applicable to the property in question; and (3) whether other Federal property disposal authorities (and their related requests for conveyances) conflict with the interest expressed in the EDC application.

Approach

The approach used to evaluate this factor is as follows:

1. A review was conducted of several documents which indicate the history of Public Benefit and McKinney Act conveyance requests.
2. An evaluation was conducted of the EDC application itself for treatment of non-EDC requests and, in particular, a review of section 4 of the EDC application entitled "Inappropriateness of Public Benefit Conveyance" was accomplished.
3. A determination was made regarding the substantiation related to each of the three criteria discussed above.

Document Review

To begin this effort a review was conducted of the Army Disposal Plan²⁶ the Reuse Plan for Sacramento Army Depot²⁷, the EDC Application from the City of Sacramento²⁸, the revised EDC Application from the City of Sacramento (10 November 1994), the Decision Paper "Discounted Economic Development Conveyance (EDC) of Sacramento Army Depot Activity (SADA)" issued by the DoD Base Transition Field Office (Roger Staab, 27 November 1994), and the Memorandum "Sacramento Army Depot Activity (SADA), CA; Recommendations on the City of Sacramento's Economic Development Conveyance Application" written by the Sacramento Army Depot (Marvin D. Fisher, 30 November 1994).

A review of these documents seemed provide a reasonably good history of public benefit conveyance application requests. It should be noted, however, that because of time constraints, an attempt was not made to independently contact any past or present applicants identified in the aforementioned documents. Also, there was no attempt to identify the existence of any applicants that may now or in the future have public benefit conveyance interests in SADA.

The April 1994 Disposal Plan indicated the following interests in property on the Sacramento Army Depot:

US Army Reserves. Pursuant to memorandum DAEN-ZCI-B dated 12 March 1993, Subject: Sacramento Army Depot Reserve Component Enclave, approximately 39 acres was transferred to Fort Lewis, WA, for use by the Army Reserves effective 14 December 1993.

California Army National Guard. Pursuant to memorandum DAEN-ZCI-B dated 12 March 1993, Subject: Sacramento Army Depot Reserve Component Enclave, a license was issued for approximately 23 acres.

Navy and Marine Corps Reserves. A 17 acre parcel is currently under permit to the Navy and Marine Corps Reserves.

California Emergency Foodlink. Application pending under McKinney Act and interim lease issued for the use of several buildings on 18 acres of property.

City of Sacramento Fire Department. A public benefit application was approved for 18 acres of property.

²⁶ Sacramento Army District, Sacramento Army Depot, *Disposal Plan: Real Property and Related Personal Property* (April 7, 1994) - Attached.

²⁷ Sacramento Army Depot Reuse Commission-City of Sacramento, *Reuse Plan for Sacramento Army Depot* (Approved June 20, 1994)

²⁸ City of Sacramento California, Revised Economic Development Conveyance Application - Sacramento Army Depot, Letter dated November 10, 1994.

California State University – Sacramento Foundation. A public benefit application was approved for two buildings and 10 acres of property.

Los Rios Community College. A public benefit application was approved by the Department of Education for 50,000 square feet of warehouse space on approximately 2 acres of property.

California State Department of Corrections. A public benefit application was approved for a 30 acre site.

California State Department of Transportation. A public benefit application was approved by the Department of Transportation for a 43 acre site pursuant to 23 USC 317.

The 20 June 1994 Reuse Plan for the Sacramento Army Depot dedicates an entire chapter to the issue of public conveyances. The following conveyance requests were discussed in this chapter:

Reserve Enclave. Same as the Army, CNG, Navy and Marine Corps Reserve uses mentioned above.

USDA, Forest Service. The Forest Service considered 27.2 acres to some of the existing office and ancillary buildings on the Depot as one of several alternative locations it was considering. The Reuse Plan indicates that the Forest Service has chosen, instead, a location at Mare Island.

California Emergency Foodlink. Request for six buildings and truck scales on 18 acres.

Vietnam Veterans. The Vietnam Veterans of America submitted a McKinney Act request for a building for a homeless housing and drug rehabilitation facility.

Sacramento Housing Alliance. A McKinney Act request for five buildings to be used as foodservice and family housing.

Operation Santa Claus. A McKinney Act request for a warehouse to house a food distribution operation.

California State Department of Corrections. A public benefit application was approved for a 30 acre site.

California State Department of Transportation. A public benefit application was approved by the Department of Transportation for a 43 acre site pursuant to 23 USC 317.

California State University System. A public benefit application for 3 acres and a building.

City of Sacramento Fire Department. A public benefit application was approved for 18 acres of property.

CSUS Department of Geology and Anthropology. A public benefit conveyance for half a building and 4 acres.

Los Rios Community College. A public benefit application was approved by the Department of Education for 50,000 square feet of warehouse space on approximately 2 acres of property.

State Employment Development Department. A negotiated sale request for 100,000 square feet of warehousing, 75,000 square feet of office space on 5 acres.

Application Review

The 4 August 1994 EDC Application from the City of Sacramento requests a conveyance of the entire base less 79 acres set aside for the Military Reserve Enclave. The application also recognizes only four other public benefit conveyances. They are: Foodlink, Vietnam Veterans (two buildings for training programs), Sacramento Housing Alliance (use of residential units and 20 acres of open space), and an accommodation of Operation Santa Claus through a cooperative agreement with Foodlink.

The 10 November 1994 EDC Application from the City of Sacramento requests a conveyance of the entire base less 79 acres for the Military Reserve Enclave, four buildings and truck scales for Foodlink, and two buildings requested by California State University System.

Both the August 4th and November 10th EDC applications contain a section entitled "Inappropriateness of Public Benefit Conveyance". This section argues that the chief constraint to reuse is the large cost associated with infrastructure improvements. This fact, coupled with the belief that property conveyed via public benefit yields insufficient direct and indirect revenues, generates a situation where the cost of improvements cannot be recovered. Therefore, it is the position of the LRA that most of the public benefit conveyance requests be denied. However, this section of the application fails to properly address the specific issues related to negotiated and public sale as required in DoD regulations (Federal Register, Vol. 59, No. 206, p 53738)

In a 27 November 1994 decision paper entitled "Discounted Economic Development Conveyance (EDC) of Sacramento Army Depot", Roger Staab -DoD BTFO-SADA remarked that "As part of the initial August EDC submittal, the LRA asked the Army to deny all public benefit conveyance requests for SADA property. While some of the requested uses could fit into the reuse plan, the LRA was still concerned with inability to finance needed infrastructure improvements for the property if major portions were conveyed directly to the requesters. The Army responded by saying we could not deny all requests, and the LRA needed to take action to get the requesters to withdraw their requests if they did not fit into the reuse plans for the property." The memorandum goes on to say:

Since submittal of the initial EDC request, two McKinney requests have been denied by HHS, and three were approved. The LRA has taken the initiative to get all but one public benefit conveyance request withdrawn, and negotiated a different location on depot for the one remaining public benefit conveyance request. In addition, the LRA negotiated an off-depot relocation at City expense for one of the approved McKinney conveyances. These efforts coordinated solely by the LRA resulted in a significant increase in availability of SADA property for redevelopment and jobs creation.

Substantiation of the Three Criteria

Does the application incorporate other Federal agency interests and concerns?

Yes, the application mentions the Military Enclave.

Does the application consider whether other Federal property disposal authorities (and, we assume, conveyance requests for these properties via those authorities) are applicable to the property in question?

Yes, Foodlink and the CSUS are covered. However, the disposition of the other McKinney and public benefit conveyance interests mentioned in the other documents insufficiently document the City's role with respect to these issues in the application. The City of Sacramento's cover letter to the 10 November 1994 EDC application mentions that the LRA's request for the Army to deny all public benefit conveyance requests is no longer an issue. The letter cites the fact that four public agencies have formally rescinded their requests and one other modified its request for a building compatible with the plan. Whether this dismissal of these interests is sufficient is a matter that should be determined by the Army's legal reviewers.

Does the application consider whether other Federal property disposal authorities (and their related requests for conveyances) conflict with the interest expressed in the EDC application?

Due to time constraints USACERL did not conduct an exhaustive review of applications or offers made pursuant to the entire range of surplus property transfer methods available to the LRA. A summary list of potential interests that have been articulated in several of the documents is the only contribution that can be made at this point. It is recommended that a thorough legal review of the handling of these applications be conducted to protect the Government from a potential protest.

Conclusions

The Reuse Plan for the Sacramento Army Depot promulgated by the City of Sacramento documented a reasoned and acceptable approach to the reuse of the Depot. The main goals of the plan are to diversify the Sacramento economy and to provide employment for both displaced Depot employees and local residents. The plan argues for a balanced mix of public benefit conveyances and areas reserved for negotiated or public sale. In fact, it would have been unwise for the LRA to have developed a reuse plan that would have proposed and targeted a single buyer for a substantial portion of the Depot.

The fact that the City of Sacramento has such an interest (a single buyer) is fortuitous and atypical. It is recognized that the law governing economic development conveyances is not intended to supplant other Federal property disposal authorities. It cannot be used if the intended land use can be accomplished through another authority unless unusual circumstances are presented that demonstrate that the needed economic development and job generation cannot occur under the other

allowable federal transfer authorities. Given the range of public benefit and McKinney Act applications listed above, it can be reasonably conceived that if the Depot were to be conveyed to these types of uses ONLY, economic redevelopment and job generation impacts would be minimal. In addition, the recovery of costs associated with the necessary public improvements would probably be inadequate.

Selling the Depot parcel by parcel, through a negotiated sale, or through a public sale are also more risky, more time consuming—and therefore more costly.

In conclusion it should be noted that there are dozens of potential scenarios that could be studied to analyze the potential risk and gains associated with conveyance of the Depot through other surplus Federal property transfer methods. Time and data constraints prevented investigation of these. However, based on the known facts, it could be argued that this atypical offer by the LRA (and Packard Bell) constitutes an "unusual circumstance" that warrants consideration under the National Defense Authorization Act of 1994 (PL 103-160, Title XXIX, Section 2903). However, the application seems to be incomplete because it fails to address in detail some of these issues, and it does not justify use of the EDC over a negotiated or public sale method of transfer in Section 4 of the 10 November 1994 application.

Appendix H: EDC Application's Relationship to the Overall Military Department Disposal Plan

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Background

On 7 April 1994, U.S. Army Corps of Engineers Sacramento District prepared the Army's disposal plan for the Sacramento Army Depot, entitled, "Disposal Plan: Real Property and Related Personal Property, Sacramento District, Sacramento Army Depot." A copy of this plan is found at Attachment H1. In addition to general background information about the depot, the Disposal Plan indicates that the "highest and best use" for the depot would be as light industrial. The plan also elaborates on the number and type of Public Benefit, McKinney Act, other conveyance requests that had been received before promulgation of the disposal plan. Finally, the Disposal Plan highlights interim use provisions, marketing, advertising, and environmental considerations.

Approach

The Disposal Plan was reviewed and compared with the EDC application to determine whether the application was consistent with the plan.

Conclusions

The pending EDC application is consistent with the disposal plan as follows:

1. The LRA proposes to lease the property to Packard-Bell Electronics for light industrial use. This use represents the highest and best use for the property per Section E (page 2) of the Disposal Plan.

2. The LRA acknowledges several of the Public Benefit and McKinney Act conveyance requests for the 79 acres to be used as a military enclave, the buildings for California Emergency Foodlink, and the buildings to be occupied by the California State University System. All of these conveyance requests are mentioned in the Disposal Plan. The LRA has specifically excluded these properties from conveyance through an EDC.
3. Should this EDC application be approved quickly, the property conveyance could be reasonably executed within the milestones set in the disposal plan—probably much earlier.

The proposed reuse of the property as indicated in the EDC application does diverge from the Disposal Plan. The Disposal Plan indicates that over 230 acres of land and buildings were proposed to be conveyed via McKinney or Public Benefit conveyances leaving approximately 250 acres available for public sale. The current application recommends that the Army convey 107 acres of property and buildings (less open space to be used as commonly maintained areas) via McKinney Act or public benefit conveyances and to authorize an EDC to the City of Sacramento for the remaining 370-plus acres. This divergence from the initial plan does not make the application request for an EDC inconsistent with the plan *per se* unless there is a persistent interest in a Public Benefit Conveyance or other authority by one of the parties listed in the Disposal Plan, but not considered as a part of the EDC application now.

Attachment H1**DISPOSAL PLAN****Real Property & Related Personal Property**

**Sacramento District
Sacramento Army Depot**

April 7, 1994

A. Identification of Property. Excess property is that portion of Sacramento Army Depot not retained for the Army Reserves and California Army National Guard. Property is located in Sacramento, Sacramento County, California and consists of approximately 423 acres of land (total Depot is 485 with 62 acres retained for the Reserves and National Guard).

B. Reported Excess By. Land was determined excess by the President's 1991 Base Realignment and Closure Commission, Public Law 101-510 dated July 1, 1991.

C. Acquisition Cost. \$100,943.50

D. Description and History.

The Sacramento Army Depot is located within the city limits of Sacramento, the state capitol of California, southeast of downtown Sacramento. The installation contains a total of approximately 485 acres, slightly over half of which is developed, with the remaining acreage being undeveloped. A U.S. Army Reserve Training Center currently occupies approximately 7.6 acres of the Depot.

There are 151 buildings on the Depot containing approximately 3.1 million square feet. The largest amount of permanent building space square footage is classified as warehouse facilities. There are also maintenance/production facilities as well as some administrative space. Adjacent properties to the installation are developed primarily for light industrial use.

On April 19, 1945, the War Department authorized construction of facilities for a new Signal Depot in Sacramento on Fruitridge Road. It was to have one million square feet of warehousing space; one million square feet of open storage area; 250,000 square feet of hard stand; 50,000 square feet for special shops, and a railway classification yard capable of handling 150 rail cars. Housing was to be provided for 500 enlisted men, 500 prisoners of war, quarters for bachelor officers, and facilities for supporting activities, including administration, fire protection, security, garage and shops; utilities, roads, and other services.

Disposal Plan Sacramento Army Depot

On October 9, 1945, plant operations began moving to the site, and on November 1, 1946, the Chief Signal Officer formally dedicated the new site as the Sacramento Signal Depot. A consolidation of Signal Corps supply and maintenance activities on the West Coast, coupled with the outbreak of the Korean War in June 1950, resulted in the 1951 construction of a \$10,000,000 shop facility, which is now the Depot's Directorate for Maintenance. On August 21, 1962, the installation became the Sacramento Army Depot (SAAD).

E. Highest and Best Use. Light industrial use is seen as the highest and best use for the bulk of the excess property and is consistent with the light industrial land use on adjacent properties. SAAD is zoned industrial and designated public/quasi-public in the City's general plan. Zoning surrounding the Depot is either industrial (M-1) or heavy industrial (M-2).

F. Methods of Disposal. Methods of disposal are discussed below. Fee title transfer of SAAD property can commence upon receipt of City of Sacramento's final Master Plan for Reuse (anticipated May 1994) and the final Environmental Impact Statement Record of Decision/Finding of Suitability for Transfer (EIS ROD/FOST). The EIS ROD is estimated to be completed by May 1995. The FOST is estimated to be approved by July 1995.

Federally requested and approved properties will be transferred upon execution of the final EIS ROD. State and local requests are currently being reviewed by the City Reuse Commission for possible inclusion in its Master Plan. Estimated completion of the City's Master Reuse Plan is May 1994.

DoD, federal, and state and local screening has been completed. A map depicting anticipated future owners of SAAD real property is attached as Exhibit "A".

1. BRAC Legislated Parcels.

(1) Pursuant to memorandum DARN-ZCI-B dated 12 March 1993, Subject: Sacramento Army Depot Reserve Component Enclave, the Army Reserves parcel consisting of approximately 39 acres was transferred to Fort Lewis, Washington, as of 14 December 1993.

(2) Pursuant to memorandum DAEN-ZCI-B dated 12 March 1993, Subject: Sacramento Army Depot Reserve Component Enclave, California Army National Guard will be issued a license for approximately 23 acres. The license is expected to be executed in early April 1994. Accountability for the parcel will then be

Disposal Plan
Sacramento Army Depot

transferred to the United States Property and Fiscal Officer for California.

2. DoD Screening. The Navy and Marine Corps Reserve parcel, approximately 17 acres, was requested during DoD screening. The parcel is currently under permit to the Navy and Marine Corps Reserves.

3. Federal Screening. The U.S. Department of Agriculture Forest Service responded during federal screening and plans to purchase approximately 27 acres for their Western Regional Headquarters. This parcel in the northern area of the Depot and includes what is now the Administration Building.

4. McKinney Homeless Assistance Act Transfer. One homeless provider, California Emergency Foodlink, has submitted an application to the Department of Health and Human Services for Warehouses 244 and 246; the Cold Storage Facility, Building 247; and, the truck scales; for food storage and distribution and a Vietnam Veteran's training program. Approximately 18 acres were requested, including the buildings, parking areas, and perimeter open areas. All McKinney Act transfers are contingent upon review and approval of the application by Health and Human Services. The California Emergency Foodlink has been granted an interim lease pending evaluation of their application for property under the McKinney Act.

5. Lease or Transfer to Community. The City of Sacramento is developing a reuse plan for the surplus land at SAAD. The acreage available for lease or transfer to the City is approximately 361 acres (485 less 39 for Army Reserve, 23 for California National Guard, 17 for DoD screening, 27 for federal screening, and 18 for McKinney Act). Transfer or lease could be for consideration at or below the estimated fair market value or without consideration. If the property is transferred or leased to the City at below fair market value or without consideration, the Army will recoup proceeds from the subsequent lease or sale by the City in accordance with the implementing regulations/guidance of the FY94 Authorization Bill.

6. Public Benefit Conveyances. Five public benefit discount applications were approved by the appropriate federal sponsor. All these applications request 100% discount. All applications are currently being evaluated by the City of Sacramento for possible inclusion in the Reuse Plan. The City is planning to formulate their recommendations concerning these applications. The location of the parcels requested is included on the map attached as Exhibit "A". State and local screening

Disposal Plan
Sacramento Army Depot

summary is shown on Exhibit "B". A narrative of the applications follows:

(1) The City of Sacramento Fire Department's request for approximately 18 acres was approved by the Department of Education for a fire department training facility.

(2) The California State University Sacramento Foundation's request was approved by Department of Education. Their use is for a manufacturing technology Education Center, Insurance Institute, and archeological repository and information center. Parcels approved include Buildings 251 and 555 and the underlying land (approximately 10 acres).

(3) The Los Rios Community College application was approved by the Department of Education for a district-wide consolidated storage and warehousing facility. The requested parcel includes 50,000 square feet of warehouse space on slightly less than two acres.

(4) The California State Department of Corrections' request was approved by the Department of Justice for a Department of Corrections Reception Center pending public approval. The Reception Center would be built on approximately 30 acres. Community groups surrounding the site as well as the Reuse Commission support the planned Reception Center.

(5) The California State Department of Transportation was approved by the Department of Transportation for a motorized equipment training academy and maintenance academy. That parcel is approximately 43 acres. The authority for this application is 23 USC § 317.

7. Negotiated Sale. The State of California Employment Development Department has requested a consolidated warehouse facility and mass mail/computer operations print facility. Their interest is in approximately 100,000 square feet of warehouse space and approximately 75,000 square feet of office space on approximately five acres. The Employment Development Department is a state political subdivision. Fair market value will be obtained by negotiation.

8. Public Sale. All remaining property (about 250 acres), if not transferred or leased to the City, will be offered for sale to the general public either by sealed bid or public auction. Public sales will be in accordance with the implementing regulations/guidance of the FY94 Authorization Bill.

**Disposal Plan
Sacramento Army Depot**

9. Interim Use.

(1) Future owners who enter into sale contracts with the Army to purchase (after the EIS ROD/FOST is signed) will be given an opportunity to negotiate a right to enter before the transfer of title can be completed.

(2) Currently, one interim license has been granted and several others are pending but have not yet been finalized. All outgrants will be short term (one-year) and will be revokable at will by the Army.

G. Separately Marketable Units. The McKinney Act letters of intent will be accepted through about the end of May 1994. McKinney Act requests for assignment should be received by September 1994. The City Reuse Commission is expected to decide which public benefit conveyances it wishes to see take place by March 1994. The BRAC legislated, DoD, Federal, and state and local conveyances should be known by May 1994 (even though exact locations of the state and local parcels may not be known). If the City does not lease or agree to purchase the property, all remaining parcels will be offered for sale to the general public.

H. Advertising. The property will be advertised for sale. A contract for sale will be submitted to DA which will grant rights to enter the premises prior to transfer of title after the EIS/ROD and FOST are signed. Predominantly regional newspapers will be utilized for advertising for sale/lease notices, as well as for public meetings.

I. Sketch. A map is attached as Exhibit "C."

J. Flood Plain Restrictions. Also attached is a map of the Depot which shows the boundary for the 100 Year Flood Plain. Floodwater potentially encroaches inside this boundary. The latest Flood Insurance Rate Map provided by the Federal Emergency Management Agency classifies this flood hazard area as Zone A99 "To be protected from 100-year flood by federal flood protection system under construction; no base elevation determined." There is minimal impact on Sacramento Army Depot with regards to the 100 Year Flood Plan. All transferees, purchasers and lessees and will be provided with Flood Plain information.

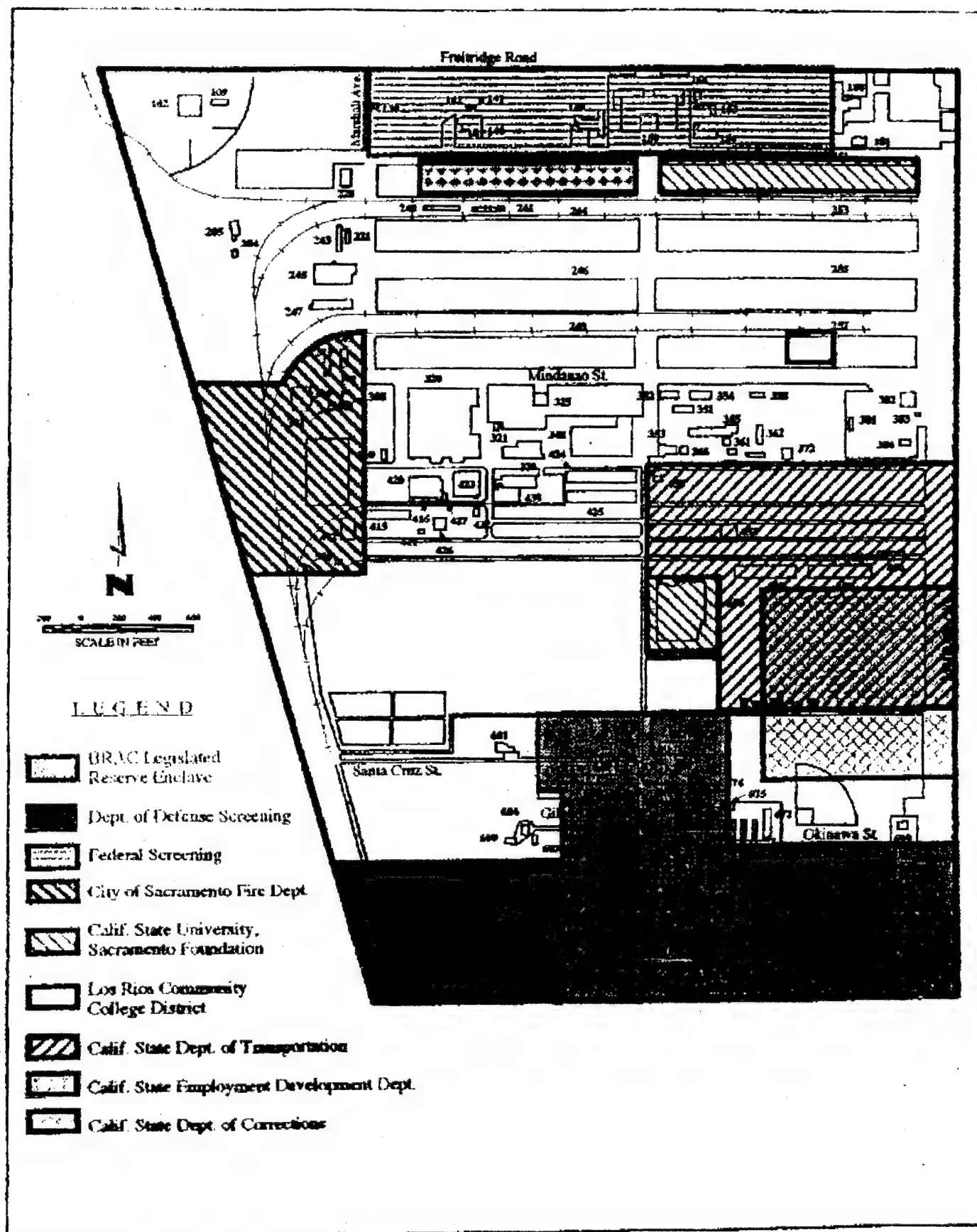
**Disposal Plan
Sacramento Army Depot**

K. Environmental Assessment. A Finding of Suitability for Lease (FOSL) will be completed for all leases. The EIS ROD is scheduled for May 1995. A FOST is scheduled for completion by July 1995. All but 11 acres are considered to be suitable for lease and or transfer/sale by May 1995.

L. Conclusion. A matrix showing milestone tasks, estimated dates and points of contact, is attached as Exhibit "D". Based upon the above, we believe our proposed methods of disposal are well founded and will bring the highest return to the Government, conform with the requirements of Public Law 103-160 and will benefit the remaining Government property and privately-owned adjacent land.

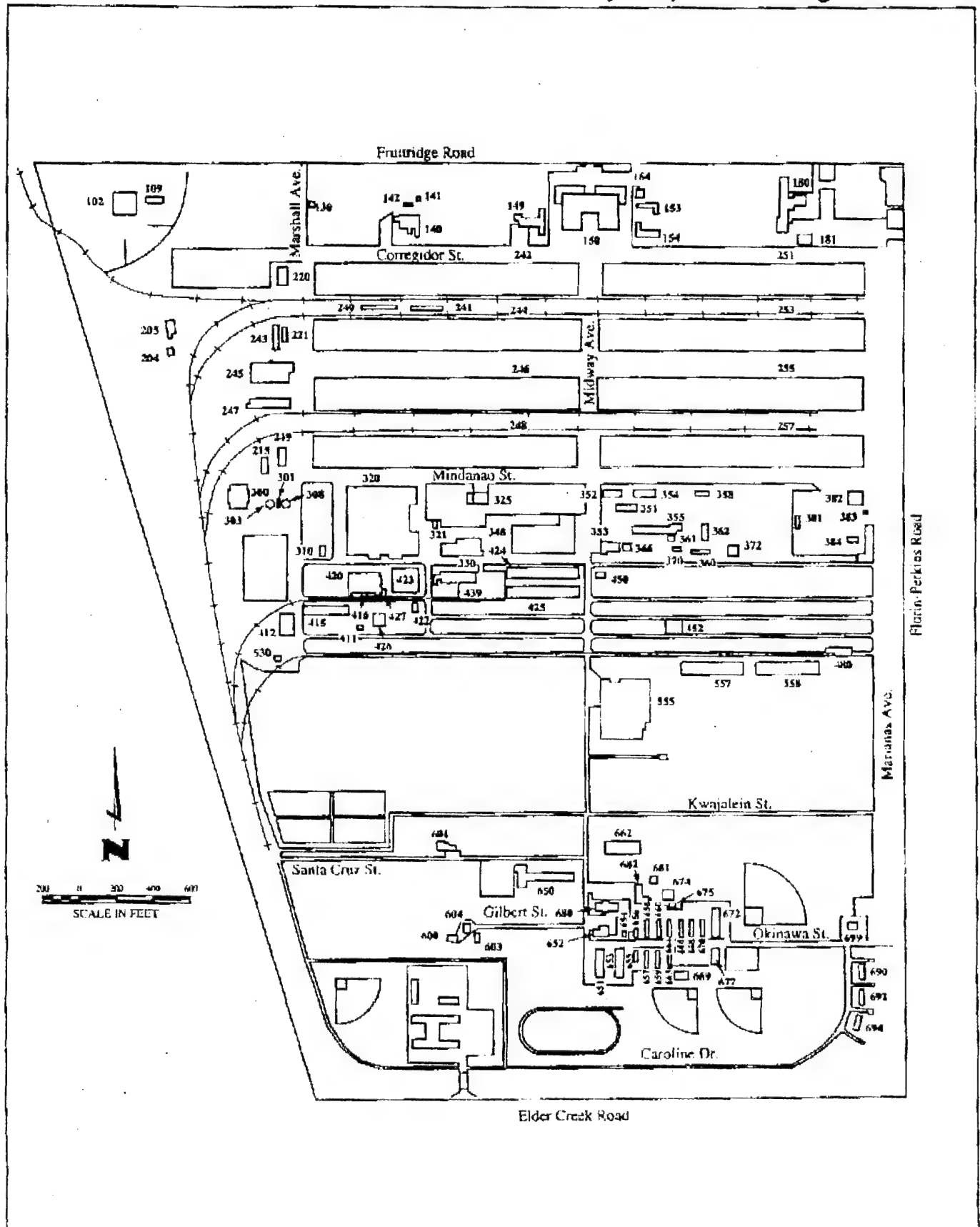
Prepared by: Julie Bowen
and
Susan Krinks
Realty Specialists

Approved By:



CORPS OF ENGINEERS RESULTS OF STATE/LOCAL SCREENING SACRAMENTO ARMY DEPOT				
Requestor	Method of Conveyance	Proposed Use	Specific Area Requested	Approved by Federal Sponsor?
City of Sacramento Fire Department	Public Benefit Discount	Fire Department Training Facility	Bldgs 215, 249, 300, 412, parking area (18 acres)	Yes Dept of Education
California State University Sacramento Foundation	Public Benefit Discount	Manufacturing Technology Education Center, Insurance Institute, Archeological Repository & Information Center	Bldgs 251 & 555 with underlying land	Yes Dept of Education
Los Rios Community College District	Public Benefit Discount	District wide consolidated storage and warehousing facility	Bldg 7-3 (or similar bldg with 50,000 sq ft of warehouse space)	Yes Dept of Education
California State Department of Corrections	Public Benefit Discount	Dept of Corrections Reception Center	Approximate location on about 30 acres	Yes Dept of Justice
California State Department of Transportation	Public Benefit Discount	Motorized Equipment Training Academy and Kingvale Maintenance Academy	Yes Approx 43 acres	Yes Dept of Transportation
State of California Employment Development Department	Negotiated Sale	Consolidated warehouse facility and mass mail computer operations print facility	Warehouse location - 100,000 sq ft warehouse space and 75,000 sq ft admin space	n/a
Sacramento Regional County Solid Waste Authority	n/a	Letter of interest withdrawn	n/a	n/a
Sacramento City Unified School District	n/a	Application was not submitted to federal sponsor	n/a	n/a

Sacramento Army Depot Building Locations



Disposal Plan Milestones					
Action	# of Days Duration	Start Date	End Date	Date Completed	POC
Advertise for Bidder's List	---	---	---	Dec 93	Krinks
Approval of ROA	---	---	---	21 Dec 93	Hull
Redelegation of Authority to Lease	---	1 Feb 94	1 Mar 94		
Conduct McKinney Act Outreach Workshop	---	9 Feb 94	9 Feb 94	9 Feb 94	Krinks
McKinney letters of intent to HHS (60 days after ad in Federal Register)	60	25 Mar 94	27 May 94		
McKinney Applications to HHS (90 days after letter of intent)	90	27 May 94	26 Aug 94		
Disposal Plan to CERE - MC		1 Feb 94	15 Mar 94		Krinks
City Reuse Plan Completed	--	--	31 May 94*		City
Local coordination of RFP	21	1 Jun 94	24 Jun 94		COE City SADA
USACE/DA approval of RFP (includes authorization for storage and use of toxic and hazardous materials)	30	27 Jun 94	29 Jul 94		Krinks Hull Johnson
Advertise for Sale -- solicitation for offer (5 days after receipt of DA approval of RFP)	5	8 Aug 94	12 Aug 94		Krinks
Distribute RFPs	2	15 Aug 94	17 Aug 94		
Conduct Public Meeting for Prospective Bidders (30 days after RFP distributed)	1	19 Sep 94			Krinks/SAAD
Bid/Proposal Opening (30 days after RFP public meeting)	1	19 Oct 94			Krinks
Select successful proposals (15 days after bid opening)	5	4 Nov 94	10 Nov 94		COE, SADA City
Appraisal	45	14 Nov 94	30 Dec 94		Krinks/Silva
Negotiate Sale	30	3 Jan 95	1 Feb 95		Krinks
Leasing Execution plan, PAS, EBS, FOSL prepared for right to enter, if applicable (60 days after selection of successful proposals)	60	1 Feb 95	3 Apr 95		
Sale contract (right to enter) approved at DA (30 days after completion of negotiations)	30	4 Apr 95	3 May 95		Hull
Execute right to enter (15 days after approval of sale contract)	5	18 May 95	23 May 95		Krinks
EIS ROD signed			May 1995		
FOST Approved (21 days to obtain approval)	21		July 95		Hull
Transfer title	30		Oct 95		
* Estimated Date -- change will affect milestones for all following tasks and events					

Appendix I: Economic Benefit to the Federal Government

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Introduction and Approach

The objective of this phase of the work was to determine the economic benefit of the Sacramento Army Depot Activity (SADA) EDC to the Federal government, including protection and maintenance cost savings and anticipated consideration from the transfer. Data were gathered for this study during a site visit to SADA on 20–21 December 1994 to observe how the depot was laid away and what costs they incur maintaining it. For the purposes of this study, the phrase of “economic benefit to the Federal government including protection” was understood to imply that the U.S. government would convey the property to an active user rather than having it laid away.

Using previous USACERL research (Uzarski et al., July 1991), current Army guidance (TN 420-10-08), and information from laid away facilities and installations, the economic benefit was calculated. The installations called are Fort Ord, CA; Tooele Army Depot, UT; Fort Sheridan, IL; Sacramento Army Depot, CA; and Fort Wingate, NM.

Protection and Maintenance Costs

To protect or lay away SADA facilities, installation personnel first determined if the infrastructure system is needed during caretaker status (no layaway), has a high potential for reuse, has a limited potential for reuse, or has no reuse potential. SADA personnel determined that some systems may qualify for multiple levels of layaway.

Since 1991, when BRAC II was announced, SADA laid away the different infrastructure systems at different levels. They estimate that the total cost to lay away facilities on the depot is somewhere between \$700,000 and \$1,000,000.

When the announcement was made to close the depot, Johnson Controls was managing the maintenance of the depot through a Base Operations contract. The Army had two options to terminate the contract: (1) pay the whole contract off, which was judged to be too expensive, and (2) close the depot the very next day, which was impractical. Through negotiations between Johnson Controls and the U.S. Army, the contract was modified to reduce maintenance workforce until the depot was conveyed to the city of Sacramento. The cost of the modified contract is approximately \$1.5 million a year, so, if the Army could not convey the property, it would cost \$1.5 million per year for maintenance and protection.

By assuming that the depot has spent \$1.5 million a year for maintenance since closure was announced, the total maintenance cost so far would be \$4.5 million (3 years \times \$1.5 million). Combining this with the actual layaway cost, the 3-year cost for SADA has been about \$5.5 million (\$4.5 million maintenance plus \$1 million layaway). In comparing SADA's costs to those of other installations that have closed, this is an unusual case. The following sections explain how protection and maintenance costs are computed per Army guidance found in TN 420-10-08.

Protection and Maintenance Costs for the Army

This report considers the three different layaway levels discussed in TN 420-10-08. The maintenance tasks associated with those tasks are from USACERL Technical Report (TR) M-91/23, Vol. II: "Layaway Procedures for Facilities, Volume II: Inspection and Maintenance and Repair Checklists" (Uzarski et al., July 1991). The tasks have also been supplemented with information gained from conversations with installation personnel and experience of USACERL researchers.

Layaway Level 1

This level of layaway is called the "do nothing" level, as outlined in USACERL TR M-91/23, "Layaway Procedures for U.S. Army Facilities, Volume 1: Decision Criteria and Economics" (Uzarski et al., July 1991). Level 1 means that installation personnel will "lock the door as they leave the building" and do no maintenance on the infrastructure. Buildings will have the personal items removed, be cleaned, and be secured. Utilities will be abandoned in place. Everything will be prepared for demolition at a later date. The infrastructure has no potential for reuse. If SADA were laid away at Level 1, it would cost \$460,000 to \$920,000, as shown in Attachment I1, Table II.

Maintenance for this level means that the installation will have a very small security force to patrol the area. Security operations will require limited utilities to operate (heat, electricity, sewer) and should inspect those systems annually. Some very limited repairs to those systems also may be necessary. In addition, there is also a crew to do minor amounts of landscape maintenance. This scope of maintenance for a Level 1 layaway would cost \$280,000 to \$570,000, annually as shown in Attachment I2, Table I2.

Layaway Level 2

At Level 2, buildings are laid away, secured, annually inspected, repaired if needed, and have most utilities shut off. Utilities will be maintained only on an "as needed" basis by the security force, inspectors, and caretaker force. Everything is prepared for a potential reuse in the future. If SADA were laid away at Level 2, it would cost about \$1.21 million to \$2.12 million as shown in Table I1.

Maintenance will include a security force patrolling the area as outlined in Layaway Level 1. There is also a small multidisciplinary caretaker force that will inspect the infrastructure on an annual basis and do minor repairs to protect the facilities. They will require some utilities to operate (heat, electricity, sewer), and should inspect those systems annually. There is also a crew to do landscape maintenance. If SADA were maintained at Level 2, it would cost about \$940,000 to \$1,640,000, annually as shown in Table I2.

Layaway Level 3

At Level 3, buildings are laid away, secured, frequently inspected, repaired, and have most utilities active. Facilities are laid away for reuse in the near future. Buildings are maintained around 55 °F in the winter and 80 °F in the summer. If SADA were laid away at Level 3, it would cost about \$830,000 to \$1,670,000, as shown in Table I1.

As for the other layaway levels, Level 3 requires a security force patrolling the area. There is also a multidisciplinary caretaker force that will inspect the infrastructure systems frequently, do repairs to protect the facilities, and maintain the utilities. There is also a crew to do landscaping maintenance. If SADA were maintained at Level 3, it would cost about \$1.61 million to \$2.9 million annually as shown in Table I2.

Annual Operation & Maintenance (O&M) Costs

The annual O&M costs for the depot were taken from the Army Red Book (see Attachment I3, Table I3). In 1992, Sacramento Army Depot was under base closure and the reported costs are very possibly lower than when the depot was at full strength. The 1992 annual cost for utilities is \$2,951,807, for maintenance and repair is \$4,487,673, for new improvements \$1,073,291, and for engineering services \$4,464,725. This will give a total cost of \$12,977,436.

Savings for Closing

To obtain the estimated O&M savings or cost avoidance for closing SADA, USACERL compiled the information from the previous sections together. The largest cost avoidance would be with Layaway Level 1. Therefore, cost savings were computed using those numbers.

The first year cost avoidance or savings of closing the depot (just considering infrastructure annual O&M costs) could be between \$11.5 million and \$12.3 million under Level 1, as shown in Attachment I4, Table I4. Additional year cost savings could be between \$12.4 million and \$12.7 million as shown in Table I4. The cost to do the actual layaway of the installation has already been included in the first year's cost and, therefore, does not need to be included again.

Because the depot closed 3 years early, the Army could avoid spending up to \$37.6 million, as shown in Table I4. Attachments I5 and I6 give detailed breakouts of the costs savings/avoidance for Level 2 (\$33-\$35 million) and Level 3 (\$31-\$33 million), respectively. These numbers do not consider many factors, such as inflation, local economy, salaries, operating costs associated with non-O&M depot missions, costs associated with relocating depot missions, and personnel expenses of relocating, retiring, or leaving early. Further studies should be done to consider these factors and find out as accurately as possible the savings for closing early.

Discussion

The estimated savings to the Army to close Sacramento Army Depot 3 years early by using the layaway levels outlines could be as high as \$37.6 million. However, there are many factors that this analysis did not consider. This number should be considered rough, but it represents a reliable "ballpark" estimate.

If the property cannot be conveyed, it would cost the government \$1.5 million a year because of the Base Operations contract in place, plus \$1 million to lay it away. Therefore, the economic benefit (cost avoidance) to the Federal Government for conveying the property is \$5.5 million per year.

If the U.S. government kept the property and developed it before conveying it, different numbers would apply. The government would have to spend between \$17.2 and \$59.1 million to develop the property plus incur a cost of \$1.5 million a year for maintenance until the property is conveyed.

To determine a ballpark figure of cost savings under this scenario, the average of the infrastructure improvement costs (\$38.2 million) can be divided over a 10 year period (\$3.82 million), then combined with the yearly infrastructure improvement cost plus the caretaker cost, which would be \$5.32 million for 10 years for a total of \$53.2 million savings. Again, it must be remembered that this is a "ballpark" estimate, and many factors not considered here would affect the \$53.2 million figure.

Conclusions and Recommendations

Conclusions

1. The U.S. Army could realize a cost avoidance as high as approximately \$37.6 million by closing the depot 3 years early, following the layaway procedures in Technical Note 420-10-08. This figure, however, is a rough estimate only.
2. If the property is not conveyed, the Army will spend \$1.5 million per year in maintenance for the Base Operations contract. This is an atypical case. By following Level 1, the Army would spend \$460,000 to \$920,000 on caretaker maintenance annually.
3. If the Army had to keep the property and develop it before conveying it, the economic benefit to the Federal Government would be the cost avoidance of spending the \$1.5 million annually and of not doing any infrastructure improvements of at least \$17.2 million. Over a 10-year period this would equate to \$32.2 million.

Recommendations

1. A more accurate annual cost savings estimate for closing the depot earlier should consider other factors such as inflation, local economy, salaries, and cost to move depot missions.
2. The annual estimated costs to layaway and maintain in the layaway levels should be validated by documenting actual costs.

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Attachment I1: Cost Estimates To Do Actual Layaway

Documented costs to lay away buildings are not tracked or compiled centrally by the U. S. Army. The data in this attachment was gathered through telephone conversations with personnel at the following locations: Fort Sheridan, IL; Tooele Army Depot, UT; Fort Ord, CA; and Fort Wingate, NM.

When asked how much it cost the installation to layaway facilities, each installation had a very different answer. Most of the answers came back in the form of: "We sent so many personnel into this building, and they came out so many hours later with the building laid away." USACERL then had to go to the real property records to find out what type of building it was and how large the facility is. Then they found out the grades of the personnel that worked on the building. This was used to calculate the cost in labor to layaway the facility. If the grades of the personnel were not known, then an average grade was assumed.

Taking all of the information available, Table I1 was compiled to estimate the cost per square foot to layaway a facility.

Table I1. Layaway costs per square foot.

LAYAWAY COSTS PER SQUARE FOOT						
Building type	Layaway Level One		Layaway Level Two		Layaway Level Three	
	Low	High	Low	High	Low	High
Training	\$0.02	\$0.04	\$0.05	\$0.09	\$0.04	\$0.07
Maintenance and Production	\$0.08	\$0.15	\$0.20	\$0.34	\$0.14	\$0.27
Research, Development, and Testing	\$0.08	\$0.16	\$0.21	\$0.37	\$0.14	\$0.29
Storage	\$0.05	\$0.10	\$0.13	\$0.23	\$0.09	\$0.18
Hospital and Medical	\$0.40	\$0.79	\$1.04	\$1.81	\$0.71	\$1.43
Administration	\$0.20	\$0.40	\$0.53	\$0.92	\$0.36	\$0.72
Unaccompanied Personnel Housing	\$0.30	\$0.60	\$0.79	\$1.38	\$0.54	\$1.08
Community	\$0.05	\$0.10	\$0.13	\$0.23	\$0.09	\$0.18
Family Housing	\$0.30	\$0.60	\$0.79	\$1.38	\$0.54	\$1.08
Other	\$0.01	\$0.02	\$0.03	\$0.05	\$0.02	\$0.04
AVERAGE COSTS PER SQUARE FOOT	\$0.15	\$0.30	\$0.39	\$0.68	\$0.27	\$0.53
With 3,118,000 sf of bldg. at SADA and rounding	\$460,000	\$920,000	\$1,210,000	\$2,120,000	\$830,000	\$1,670,000

Attachment I2: Maintaining Structures in Layaway Status

Document costs to actually maintain laid away buildings do not exist in the U. S. Army. The information presented herein has been gathered together by the authors through telephone conversations with personnel at the following locations: Fort Sheridan, IL; Tooele Army Depot, Utah; Fort Ord, CA; and Fort Wingate, NM.

When asked how much it cost to maintain laid away facilities, each installation had a very different answer. Most of the answers came back in the form of: "We have so many buildings at a certain level of layaway and we have so many personnel on the caretaker force." USACERL then had to go to the real property records to find out what type of buildings exist and how large they are. Then they found out the grades of the personnel that are on the caretaker force. This was used to calculate the cost in labor to maintain the laid away facilities. The cost per type of facility was then prorated by building area to determine a cost per square foot of a particular type of building.

Taking all of the information available, the authors put together as best as possible the following table to estimate the cost per square foot to maintain laid away facilities. The authors recommend that additional engineering studies be performed to validate these costs.

Table I2. Annual layaway M&R costs.

ANNUAL LAYAWAY M&R COSTS						
	Layaway Level One		Layaway Level Two		Layaway Level Three	
Building type	Low	High	Low	High	Low	High
Training	\$0.01	\$0.02	\$0.03	\$0.06	\$0.06	\$0.10
Maintenance and Production	\$0.08	\$0.15	\$0.25	\$0.43	\$0.43	\$0.77
Research, Development, and Testing	\$0.05	\$0.10	\$0.17	\$0.29	\$0.28	\$0.51
Storage	\$0.02	\$0.03	\$0.05	\$0.09	\$0.09	\$0.15
Hospital and Medical	\$0.20	\$0.40	\$0.66	\$1.16	\$1.13	\$2.04
Administration	\$0.15	\$0.30	\$0.50	\$0.87	\$0.85	\$1.53
Unaccompanied Personnel Housing	\$0.18	\$0.35	\$0.58	\$1.01	\$0.99	\$1.79
Community	\$0.05	\$0.10	\$0.17	\$0.29	\$0.28	\$0.51
Family Housing	\$0.18	\$0.35	\$0.58	\$1.01	\$0.99	\$1.79
Other	\$0.01	\$0.02	\$0.03	\$0.06	\$0.06	\$0.10
AVERAGE ANNUAL M&R COSTS/SF	\$0.09	\$0.18	\$0.30	\$0.53	\$0.52	\$0.93
With 3,118,000 sf of bldg. at SADA and rounding	\$280,000	\$570,000	\$940,000	\$1,640,000	\$1,610,000	\$2,900,000

Attachment I3: Operations and Maintenance Costs for Sacramento Army Depot during FY1992.

Table I3. 1992 Red Book data for SADA.

Red Book 1992 data					
Activity	Tech Data Activity Title	Unit	Quantity	Total Costs	Unit Costs
	Active and Inactive Facilities	K Sq Ft	3,118	\$12,977,436	\$4,162.10
J00000	Operation of Utilities	Pop Serv	3,465	\$2,951,807	851.89
J10000	Water Service	K Gal	116,229	\$53,717	\$0.46
J11000	Purchased	K Gal	116,229	\$53,717	\$0.46
J12000	Filtered	K Gal			
J13000	Unfiltered	K Gal			
J20000	Sewage Services	K Gal	199,029	\$111,473	\$0.56
J21000	Purchased Sewage Disposal	K Gal	192,100	\$111,473	\$0.58
J22000	Treated Domestic Sewage	K Gal			
J22100	Primary Plant Operation	K Gal			
J22200	Secondary Plant Operation	K Gal			
J22300	Advanced Wastewater Plant Operation	K Gal			
J23000	Industrial Waste Treatment Facilities	K Gal	6,929		
J24000	Untreated Industrial Wastes and/or Cooling Water	K Gal			
J30000	Electric Service	MWH	31,259	\$2,021,133	\$64.66
J31000	Purchased Electric Energy	MWH	31,259	\$2,021,133	\$64.66
J32000	Electric Generating Plants Operation	MWH			
J40000	Boiler Heat Plants and Purchased Steam/Hot water	M BTU	135,905	\$716,707	\$5.27
J41000	Boiler Plants High Pressure (Over 3.5 M BTU-HR Cap)	M BTU	98,331	\$484,358	\$4.93
J41100	Gas Fired	M BTU	98,331	\$484,358	\$4.93
J41200	Oil Fired	M BTU			
J41300	Coal Fired	M BTU			
J42000	Heating Plants (Over 3.5 M BTU-HR Cap)	M BTU			
J42100	Gas Fired	M BTU			
J42200	Oil Fired	M BTU			
J42300	Coal Fired	M BTU			
J43000	Heating Plants (0.750 - 3.5 M BTU-HR Cap)	M BTU	6,630	\$48,060	\$7.25
J43100	Gas Fired	M BTU	6,630	\$48,060	\$7.25
J43200	Oil Fired	M BTU			
J43300	Coal Fired	M BTU			
J44000	Heating Plants (Under 0.750 M BTU-HR Cap)	M BTU	30,944	\$184,289	\$5.96
J44100	Gas Fired	M BTU	30,944	\$184,289	\$5.96

Activity	Tech Data Activity Title	Unit	Quantity	Total Costs	Unit Costs
J44200	Oil Fired	M BTU			
J44300	Coal Fired	M BTU			
J45000	Purchased Steam and Hot Water	M BTU			
J50000	<i>Air Conditioning & Cold Storage Plants</i>			\$36,344	
J51000	Air Conditioning Plants (All Tonnage)	TON CAP	1,156	\$30,685	\$26.54
J52000	Cold Storage Plants (Including ice manufacturing)	HP CAP		\$5,659	
J90000	<i>Other Utilities Operation</i>			\$12,433	
J91000	Other Utilities Connection Costs				
J92000	Other Utilities (Less Connection Costs)			\$12,433	
K00000	Maintenance of Real Property	K SQ FT	3,118	\$4,487,613	\$1,439.26
K10000	<i>Utilities System</i>			\$870,910	
K11000	Water Systems			\$21,953	
K11100	Treatment and Filtration	K GAL-DAY			
K11110	Plants	K GAL-DAY			
K11120	Source	K GAL-DAY			
K11200	Wells	K GAL-DAY			
K11300	Distribution Systems			\$21,953	
K11310	Mains and Laterals	K LIN FT	63	\$21,953	\$348.46
K11320	Pumping Stations	K GAL-DAY			
K11330	Storage	K GAL-CAP			
K12000	Sewer Systems			\$40,836	
K12100	Treatment Plants	K GAL-DAY	45	\$37,939	\$843.09
K12110	Primary	K GAL-DAY	25	\$3,598	\$143.92
K12120	Secondary	K GAL-DAY			
K12130	Advanced Wastewater	K GAL-DAY			
K12140	Industrial Waste Treatment Facilities	K GAL-DAY	20	\$34,341	\$1,717.05
K12200	Sewage Collection Systems			\$2,897	
K12210	Sanitary Mains and Laterals	K LIN FT	41	\$2,832	\$69.07
K12220	Sanitary Pumping Plants	K GAL-DAY	243	\$65	\$0.27
K12230	Industrial Waste Mains and Laterals	K LIN FT	1		
K12240	Industrial Waste Pumping Plants	K GAL-DAY			
K13000	Electric Systems			\$106,634	
K13100	Generating Plants	KVA CAP		\$315	
K13210	Distribution Systems -- Overhead	K LIN FT	71	\$95,697	\$1,347.85
K13220	Distribution Systems -- Underground	K LIN FT	17	\$1,235	\$72.65
K13300	Distribution ---- Transformers	KVA CAP	20,154	\$156	\$0.01
K13400	Exterior Lighting	LIGHTS	460	\$6,344	\$13.79
K13500	Sub and Switching Stations	PLT	1	\$2,887	\$2,887.00
K14000	Boiler and Heating Plants			\$254,943	
K14100	Boiler Plants High Pressure (Over 3.5 M BTU-HR Cap)	M BTU	62	\$63,825	\$1,029.44
K14110	Gas Fired	M BTU	62	\$63,825	\$1,029.44
K14120	Oil Fired	M BTU			
K14130	Coal Fired	M BTU			

Activity	Tech Data Activity Title	Unit	Quantity	Total Costs	Unit Costs
K14200	Heating Plants (Over 3.5 M BTU-HR Cap)	M BTU			
K14210	Gas Fired	M BTU			
K14220	Oil Fired	M BTU			
K14230	Coal Fired	M BTU			
K14300	Heating Plants (0.750 - 3.5 M BTU-HR Cap)	M BTU	5	\$248	\$49.60
K14310	Gas Fired	M BTU	5	\$248	\$49.60
K14320	Oil Fired	M BTU			
K14330	Coal Fired	M BTU			
K14400	Heating Plants (Under 0.750 M BTU-HR Cap)	M BTU	12	\$10,586	\$882.17
K14410	Gas Fired	M BTU	12	\$10,586	\$882.17
K14420	Oil Fired	M BTU			
K14430	Coal Fired	M BTU			
K14500	Other Heating Support			\$180,284	
K14510	Steam and Hot Water Distribution Systems	K LIN FT	34	\$35,722	\$1,050.65
K14520	Gas Distribution Systems	K LIN FT	22	\$144,562	\$6,571.00
K14530	Gas Storage and Generating Facilities	NO. FACIL			
K15000	Air Conditioning and Refrigeration			\$142,977	
K15100	Air Conditioning and Chill Water Plants	TON CAP	22	\$111,859	\$5,084.50
K15110	Air Conditioning (5 Tons and Over)	TON CAP	22	\$111,859	\$5,084.50
K15130	Heat Pump (5 Tons and Over)	TON CAP			
K15200	Air Conditioning	TON CAP	98	\$28,294	\$288.71
K15120	Air Conditioning (Under 5 Tons Cap)	TON CAP	98	\$28,294	\$288.71
K15140	Heat Pump (Under 5 Tons Cap)	TON CAP			
K15210	Refrigeration	HP CAP	300	\$2,824	\$9.41
K15220	Cold Storage Plant	HP CAP			
K19000	Other Utilities			\$303,567	
K19100	Other Utilities (Connection Costs)				
K19200	Other Utilities (Less Connection Costs)			\$303,567	
K20000	<i>Buildings</i>	K SQ FT	3,118	\$3,284,109	\$1,053.27
K21000	Training	K SQ FT	100	\$101,972	\$1,019.72
K22000	Maintenance and Production	K SQ FT	697	\$1,548,090	\$2,221.08
K23000	Research Development and Testing	K SQ FT	110	\$90,322	\$821.11
K24000	Storage	K SQ FT	1,723	\$816,963	\$474.15
K25000	Hospital and Medical	K SQ FT	7	\$4,078	\$582.57
K26000	Administration	K SQ FT	312	\$486,204	\$1,558.35
K27000	Unaccompanied Personnel Housing	K SQ FT	38	\$38,649	\$1,017.08
K28000	Community	K SQ FT	59	\$121,935	\$2,066.69
K29100	Family Housing	K SQ FT			
K29200	Other	K SQ FT	72	\$75,896	\$1,054.11
K30000	<i>Grounds Maintenance</i>	ACRE	485	\$234,022	\$482.52
K31000	Improved Grounds	ACRE	111	\$196,260	\$1,768.11
K32000	Unimproved Grounds	ACRE	374	\$37,762	\$100.97
K32100	Wildlife Management	ACRE			

Activity	Tech Data Activity Title	Unit	Quantity	Total Costs	Unit Costs
K32200	Commercial Forest	ACRE			
K32300	Unimproved Grounds	ACRE	374	\$37,762	\$100.97
K32400	Agricultural & Grazing Leases	ACRE			
K42000	Active Railroads (Including Mob and RDF Trackage)	K LIN FT	53	\$2,513	\$47.42
K50000	Surfaced Areas Maintenance			\$61,617	
K51100	Roads - Concrete	K SQ YDS	21	\$31,871	\$1,517.67
K51200	Roads - Bituminous	K SQ YDS	156	\$11,701	\$75.01
K51300	Roads - Gravel Stabilized or Graded	K SQ YDS	6	\$2,304	\$384.00
K51400	Roads - Other Miscellaneous Hard Surface	K SQ YDS			
K51500	Tank Trails	K SQ YDS			
K52210	Airfield Pavement - Concrete	K SQ YDS			
K52220	Airfield Pavement - Bituminous	K SQ YDS	18	\$381	\$21.17
K52230	Airfield Pavement - Other	K SQ YDS	3		
K53100	Sidewalks	K SQ YDS	20	\$254	\$12.70
K53200	Parking Vehicular	K SQ YDS	158	\$14,779	\$93.54
K53300	Open Storage	K SQ YDS	392	\$327	\$0.83
K54000	Bridge Maintenance		1	\$268	\$268.00
K54110	Bridges - Vehicular Installed Road Network	No. Bridges	1	\$268	\$268.00
K54120	Bridges - Vehicular Training Areas	No. Bridges			
K54200	Bridges and Trestles - Railroads	No. Bridges			
K60000	Miscellaneous Maintenance and Repair			\$34,174	
K61000	Waterfront Facilities and Waterways	FACS			
K62000	Maintenance and Repair of Equipment				
K63000	Building Related Facilities			\$34,174	
K70000	Maintenance and Repair - Inactive Facilities				
K52100	Airfield Pavement - Inactive	K SQ YDS			
K71000	Buildings - Inactive	K SQ FT			
K72000	Grounds - Inactive	ACRE			
K41000	Railroads - Inactive	K LIN FT			
K74000	Utilities - Inactive				
KA0000	Hand Tools and Personal Safety Equipment				
L00000	Minor Construction	% OF K	24	\$1,073,291	
L10000	Alteration and Minor Construction			\$1,073,291	
L20000	Alteration and Minor Construction (Inactive)				
M00000	Other Engineering Support			\$4,464,725	
M10000	Fire Prevention & Protection	PER K SERV	3	\$233,928	\$77,976.00

Activity	Tech Data Activity Title	Unit	Quantity	Total Costs	Unit Costs
M20000	<i>Refuse Handling</i>	TONS	9,100	\$110,452	\$12.14
M21000	Collection	TONS	4,550	\$52,729	\$11.59
M21100	In-house	TONS	4,550	\$52,729	\$11.59
M21200	Contract	TONS			
M22000	Disposal	TONS	4,550	\$57,723	\$12.69
M22100	In-house	TONS		\$27,479	
M22110	Sanitary Landfill	TONS		\$27,252	
M22120	Incineration	TONS			
M22130	Resource Recovery/Recycling	TONS		\$227	
M22140	Source Separation of Paper	TONS			
M22150	Other	TONS			
M22200	Contract	TONS	4,550	\$30,244	\$6.65
M30000	<i>Pest Control Services</i>			\$39,735	
M31000	Buildings	K SQ FT	3,126	\$39,735	\$12.71
M32000	Grounds	ACRE	485		
M40000	<i>Custodial Services</i>	K SQ FT	358	\$1,197,142	\$3,343.97
M41000	Contract	K SQ FT	358	\$1,170,084	\$3,268.39
M42000	In-house	K SQ FT		\$27,058	
M50000	<i>Snow/Sand Removal & Ice Alleviation</i>				
M60000	<i>Management & Engineering (Active) (Including Master Planning)</i>	% TOTAL	16	\$2,050,899	
M61000	Management and Engineering (Less Master Planning)	% TOTAL	16	\$2,031,421	
M62000	Master Planning	% TOTAL		\$19,319	
M63000	Environmental Program Management			\$159	
M64000	Facilities Technology Application Tests				
M71000	Division Engineering Office Expense				
M72000	Real Estate Administration				
M73000	Administration Related to Agriculture & Grazing Leases				
M74000	Construction Support Program				
M80000	<i>Engineering Support (Inactive)</i>				
M90000	<i>Miscellaneous Engineering Activities</i>			\$832,569	
M91000	Real Estate Transactions				
M92000	Installation of Intrusion Detection Systems	No. Install	2		
M93000	Family Housing - Household Equipment Maintenance	No. Units			
M94000	Special Maintenance Activities			\$554,870	
M95000	Packing and Crating				
M96000	Facility Engineering Supply Operations			\$179,517	
M97000	Purchased FE Services				
M98000	Maintenance/Repair/Purchase & Rental of Equipment-in-place			\$98,182	
M99000	Demolition of Real Property	K SQ FT			

Activity	Tech Data Activity Title	Unit	Quantity	Total Costs	Unit Costs
MC0000	<i>Reserve Component Leases</i>				

Attachment I4: Estimated Savings/Cost Avoidance for Level I

The estimated cost savings was calculated by taking the information from Attachments I1, I2, and I3. The information in Attachments I1 and I2 was subtracted from the information in Attachment I3 on a yearly basis. Then a cumulative cost savings or avoidance was calculated over a yearly basis for a 5-year period of time.

Table 14. Layaway Cost Savings for Level 1.

O & M COST SAVINGS AT LAYAWAY LEVEL ONE										
Year	Type of Annual O&M	Cost of O&M	Actual Layaway Costs		Annual Layaway Costs		Savings		Cumulative Savings	
			Low	High	Low	High	Low	High	Low	High
	Utilities	\$2,950,000								
	M&R	\$4,490,000								
	New Improvements	\$1,070,000								
	Engineering Services	\$4,460,000								
1	TOTAL	\$12,970,000	\$430,000	\$860,000	\$280,000	\$570,000	\$11,540,000	\$12,260,000	\$11,540,000	\$12,260,000
2		\$12,970,000			\$280,000	\$570,000	\$12,400,000	\$12,690,000	\$24,230,000	\$24,950,000
3		\$12,970,000			\$280,000	\$570,000	\$12,400,000	\$12,690,000	\$36,920,000	\$37,640,000
4		\$12,970,000			\$280,000	\$570,000	\$12,400,000	\$12,690,000	\$49,610,000	\$50,330,000
5		\$12,970,000			\$280,000	\$570,000	\$12,400,000	\$12,690,000	\$62,300,000	\$63,020,000

Attachment I5: Estimated Savings/Cost Avoidance for Level II

The estimated cost savings was calculated by taking the information from Attachments I1, I2, and I3. The information in Attachments I1 and I2 was subtracted from the information in Attachment I3 on a yearly basis. Then a cumulative cost savings or avoidance was calculated over a yearly basis for a 5-year period of time.

Table 15. Layaway Cost Savings for Level 2.

O & M COST SAVINGS AT LAYAWAY LEVEL TWO										
Year	Type push button O&M	Cost of O&M	Actual Layaway Costs		Annual Layaway Costs		Savings		Cumulative Savings	
			Low	High	Low	High	Low	High	Low	High
	Utilities	\$2,950,000								
	M&R	\$4,490,000								
	New Improvements	\$1,070,000								
	Engineering Services	\$4,460,000								
1	TOTAL	\$12,970,000	\$1,210,000	\$2,120,000	\$940,000	\$1,640,000	\$9,210,000	\$10,820,000	\$9,210,000	\$10,820,000
2		\$12,970,000			\$940,000	\$1,640,000	\$11,330,000	\$12,030,000	\$21,240,000	\$22,850,000
3		\$12,970,000			\$940,000	\$1,640,000	\$11,330,000	\$12,030,000	\$33,270,000	\$34,880,000
4		\$12,970,000			\$940,000	\$1,640,000	\$11,330,000	\$12,030,000	\$45,300,000	\$46,910,000
5		\$12,970,000			\$940,000	\$1,640,000	\$11,330,000	\$12,030,000	\$57,330,000	\$58,940,000

Attachment I6: Estimated Savings/Cost Avoidance for Level III

The estimated cost savings was calculated by taking the information from Attachments I1, I2, and I3. The information in Attachments I1 and I2 was subtracted from the information in Attachment I3 on a yearly basis. Then a cumulative cost savings or avoidance was calculated over a yearly basis for a 5-year period of time.

Table 16. Layaway Cost Savings for Level 3.

O&M COST SAVINGS AT LAYAWAY LEVEL THREE										
Year	Type of Annual O&M	Cost of O&M	Actual Layaway Costs		Annual Layaway Costs		Savings		Cumulative Savings	
			Low	High	Low	High	Low	High	Low	High
	Utilities	\$2,950,000								
	M&R	\$4,490,000								
	New Improvements	\$1,070,000								
	Engineering Services	\$4,460,000								
1	TOTAL	\$12,970,000	\$830,000	\$1,670,000	\$1,610,000	\$2,900,000	\$8,400,000	\$10,530,000	\$8,400,000	\$10,530,000
2		\$12,970,000			\$1,610,000	\$2,900,000	\$10,070,000	\$11,360,000	\$19,760,000	\$21,890,000
3		\$12,970,000			\$1,610,000	\$2,900,000	\$10,070,000	\$11,360,000	\$31,120,000	\$33,250,000
4		\$12,970,000			\$1,610,000	\$2,900,000	\$10,070,000	\$11,360,000	\$42,480,000	\$44,610,000
5		\$12,970,000			\$1,610,000	\$2,900,000	\$10,070,000	\$11,360,000	\$53,840,000	\$55,970,000

Appendix J: Environmental Considerations

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The environmental component of the EDC application review is provided as an assurance that there are no environmental issues that would hinder the EDC. USACERL staff reviewed the EDC application and legally required environmental documents that were previously prepared for the disposal and reuse of Sacramento Army Depot. The EDC application was evaluated for its consistency with the environmental documentation and its completeness in acknowledging relevant environmental conditions.

The required National Environmental Policy Act (NEPA) documentation was completed and made available in October 1994. The Sacramento Army Depot Disposal and Reuse Environmental Impact Statement (EIS) (October 1994) has been approved by Lewis D. Walker, Deputy Assistant Secretary of the Army (Environment, Safety, Occupational Health). The Record of Decision was being prepared as of 17 January 1995.

This review acknowledges the issues raised by the disposal and reuse of the Sacramento Army Depot, as well as their resolution. The use intended in the EDC application most closely resembles the preferred alternative identified in the Disposal and Reuse EIS. The EIS notes potential significant adverse impacts to traffic and wildlife that would result from the implementation of the preferred alternative. However, these impacts can be reduced to insignificant levels through proposed mitigations that would be carried out by the new owners of the site.

Traffic Impacts

Congestion resulting from increased traffic in the area is likely. A 74 percent increase in the average daily trips is projected (Sacramento Army Depot Disposal and Reuse EIS, 1994). Mitigation for lane congestion would require two to four more lanes on the street system adjacent to the Depot, as well as geometric and traffic control improvements at the five site access points foreseen in the reuse plan. Whether the expansion would require two or four more lanes depends on the success of the City's trip reduction ordinance. Two extra lanes would suffice for fully

successful implementation; four extra lanes would be needed if success is minimal. Improvements to six local street intersections and two to four highway ramp intersections are also recommended (Sacramento Army Depot Disposal and Reuse EIS, 1994). Actual street and intersection alterations would be determined as part of a comprehensive mitigation policy and implementation plan. This plan should be designed for the actual site uses to be developed.

Biological Impacts

With implementation of the reuse identified in the preferred alternative, loss of wildlife habitat would occur. Twelve nesting sites of the burrowing owl (*Speotyto cunicularia*), a California Species of Special Concern, are located on Depot grounds. Five of the 12 active burrowing owl nest sites would be lost to reuse. This is a potentially significant impact. These nest sites are located adjacent to designated Open Space in the northwest corner, and southwest and west-central portions of the Depot. It is speculated in the EIS that the burrowing owls would probably relocate to new nest sites in the undisturbed open space that consists mostly of grassland (Sacramento Army Depot Disposal and Reuse EIS, 1994). It is recommended that the new land managers develop mitigation measures in consultation with the California Department of Fish and Game.

There are five known locations of the Federal-listed threatened vernal pool fairy shrimp (*Branchineta lynchi*). A Federal-listed endangered species, the tadpole shrimp (*Lepidurus packardii*), exists just outside the western perimeter of the Depot. The vernal pool fairy shrimp and tadpole shrimp are 1 inch long invertebrates. These species grow in temporary pools filled with rainwater. Although the critical habitat of these species has not been clearly defined, vernal pools are protected from destruction under Section 404 of the Clean Water Act. No Federal-listed endangered species occur on the Sacramento Army Depot.

As mitigation for these potential biological impacts, the Reuse Plan proposes a 63.8 acre area designated as open space. This area will be reserved for protection of the burrowing owl, vernal pool species, and other natural resources. As noted in the EDC application, before the property can be transferred to local government or private owners, the Reuse Plan must satisfy the requirements of the U.S. Fish and Wildlife Service for protection of endangered species and wetland habitat. If necessary, measures should be developed through the consultation process outlined in Section 7 of the Endangered Species Act to protect the fairy shrimp.

Toxic Impacts

The entire Sacramento Army Depot is currently listed on the National Priority List as a Superfund site. Removal from the list, or "delisting", should occur in early 1995. Remediation and clean-up are ongoing. As one of the specific terms and conditions for the EDC, the application states:

All toxic remediation on the site remains the liability of the Army. Remediation will be underway by the time title is transferred. Groundwater cleanup will be completed by 2001. Army will seek to remove the site from the Superfund list as appropriate.

Some use restrictions over some remediation sites may be required. The EDC application states that "[u]ntil groundwater cleanup is completed, the groundwater treatment facility located at building 601 will not be available for disposal. Also, easements will need to be granted for numerous groundwater testing wells until remediation is complete." In addition, the EDC application states that deed restrictions will be placed on two remediation areas, the South Burn Pits and the Oxidation Lagoons. The deed restrictions should be made explicit.

Acronyms and Abbreviations

AFB	Air Force Base
BRAC	Base Realignment and Closure
CA	commercial activities
CAM	common area maintenance
CSUS	California State University System
DoD	Department of Defense
EDC	Economic Development Conveyance
EIFS	Economic Impact Forecast System
EIS	Environmental Impact Statement
FTB	Franchise Tax Board
FY	Fiscal Year
GAIN	Great Avenues for Independence
HQUSACE	Headquarters, U.S. Army Corps of Engineers
INF	Intermediate Nuclear Forces (Treaty)
IRR	internal rate of return
JTPA	Job Training Partnership Act
LRA	Local Redevelopment Authority
NDAA	National Defense Authorization Act
NEPA	National Environmental Policy Act

NPV	net present value
O&M	operations and maintenance
PB	Packard Bell
PV	present value
ROI	return on investment
RTV	rational threshold value
SADA	Sacramento Army Depot Activity
TAC	Technical Assistance Center
TJTC	Targeted Jobs Tax Credit
TN	Technical Note
USACERL	U.S. Army Corps of Engineers Construction Engineering Research Laboratories

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